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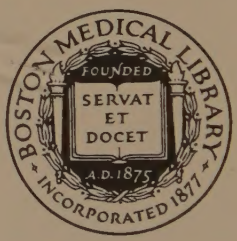

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RENÉ THÉOPHILE HYACINTHE LAENNEC

Frontispiece.

THE ONLY AUTHENTIC PORTRAIT OF LAËNNEC. PAINTED BY ALEXANDRE DUBOIS IN 1812, BUT DATED 1813, TO ENABLE THE PICTURE BEING PLACED IN THE SALON OF THAT YEAR. THE ARTIST HAD RECEIVED PROFESSIONAL SERVICE FROM LAËNNEC AND THIS PORTRAIT WAS PAINTED INSTEAD OF PAYMENT. THE STETHOSCOPE IN THE LOWER LEFT CORNER WAS ADDED LATER.

RENÉ THÉOPHILE HYACINTHE LAENNEC

A MEMOIR

BY

GERALD B. WEBB, M.D.

President, Colorado School of Tuberculosis, Colorado Springs; U. S. Government Delegate to the Laennec Centenary, Paris, December, 1926

13 FULL-PAGE PLATES

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TO

MY WIFE & CHILDREN

AND TO THE MEMORY

OF MY HUGUENOT MOTHER

FRANCES LEPLASTRIER WEBB

AVANT-PROPOS

LITTLE is known by the layman concerning the lives of men who have advanced the art of medicine. Highly educated people have visited Quimper without noting the statue erected near the cathedral commemorating the birthplace of Laënnec. Biographical reading is today increasing and it is hoped that students in varying pursuits may find inspiration in this sketch of the life of Laënnec, the greatest of all physicians. Heretofore there has been no attempt to give a complete picture in the English language of this immortal French physician, and to few outside the medical profession is the name of Laënnec known.

It is of especial interest to read the tribute in 1846, of another great physician, Thomas Addison, the discoverer of "Morbus Addisonii": "Were I to affirm that Laënnec contributed more towards the advancement of the medical art than any other

single individual, either of ancient or of modern times, I should probably be advancing a proposition which, in the estimation of many, is neither extravagant nor unjust. His work, 'De l'Auscultation Médiate,' will ever remain a monument of genius, industry, modesty, and truth. It is a work, in perusing which, every succeeding page only tends to increase our admiration of the man, to captivate our attention, and to command our confidence. We are never permitted for a moment to imagine that we are reviewing, for the first time the mere professions of an ingenious speculator or plausible theorist: we are led insensibly to the bedside of his patients; we are startled by the originality of his system; we can hardly persuade ourselves that any means so simple can accomplish so much, can overcome and reduce to order the chaotic confusion of thoracic pathology; and hesitate not, in the end, to acknowledge our unqualified wonder at the triumphant confirmation of all he professed to accomplish. If to anyone this should appear the language

rather of exaggeration and enthusiasm than of sober judgment, let him, as a matter of justice to Laënnec, endeavor to ascertain the actual state of our knowledge on the subject previous to the time of that distinguished man; let him consult the work of Cullen, the standard work of that day; let him divest himself for the moment, if he can, of all that he has learned directly or indirectly from the labors of Laënnec; let him lay aside what he may now regard as the mere alphabet of thoracic disease. I say, let him do this, and he will, I doubt not, be amazed to find that of this very alphabet Laënnec was the original and undisputed author." Comparable admiration was that of Lister for Pasteur. From his mastery of the "literae humaniores" we owe to Laënnec the coinage of numerous words in daily use in medical practice: To instance, pectoriloquy from the Latin, meaning the voice from the chest; and from the Greek, egophony, meaning the goat bleat; and cirrhosis, applied to certain diseases of the liver from the orange-like color of this organ found at autopsy.

The writer acknowledges his debt to The Denver Clinical and Pathological Society for inviting him to give an address before that organization on February 9, 1926. This address, to commemorate the centenary of the death of Laënnec, was so well received that the author, with the scholarly help of his good friend and patient, W. F. C. Nelson, was encouraged to re-write and elaborate it for publication. The illustrations are for the most part taken from the two volumes on Laënnec published by Alfred Rouxeau in 1912 and 1920. A few illustrations have been copied from a publication of The Committee of The Laënnec Centenary, 1926. Rouxeau deserves the greatest praise for the completeness and comprehension exhibited in his works, but unfortunately there have been no translations. Readers of this memoir will accept more readily Stevenson's description of physicians, for Laënnec stood above the common herd and typified the flower of our civilization.

GERALD B. WEBB.

COLORADO SPRINGS, COL.
May, 1928

FOREWORD

When the high heart we magnify,
  And the sure vision celebrate,
And worship greatness passing by,
  Ourselves are great.

DRINKWATER

SINCE the time of the Protestant Revolt and the Catholic reaction, probably no epoch of European history till our own has been so fraught with consequence as that from the year 1781 to 1826. The age of Luther was one of religious reformation and counter-reformation; the age of Napoleon was one of political revolution and reaction. One can sufficiently characterize the second by saying that it embraced Mirabeau and Metternich. A significant age is the creation of significant men; it is therefore not surprising that during that period some of the most illustrious of names were inscribed in

the pages of history. In England, men listened to the sonorous periods of the greatest of political philosophers, Edmund Burke, or watched the greatest of war ministers, the younger Pitt, accomplish alone what Austria and Prussia and Italy had not been able to accomplish together. In France, one can recall the sequence of events by the mere mention of the names of Necker and Marie Antoinette, of Mirabeau and Sieyès, of Danton and Robespierre, of Dumouriez and Carnot and Bonaparte. On the sea the greatest of naval commanders won the most significant of naval encounters, Trafalgar. By land the victor of Jena and Austerlitz finally succumbed in the most celebrated of modern battles, to a captain only less great than he. In the New World there was created a new nation, the fruition of the diplomatic talent of Franklin, the speculative talent of Jefferson, the financial genius of Hamilton and the military genius of Washington.

But peace hath her victories no less renowned than those of war. The subject

of this brochure won in an encounter less celebrated but perhaps more notable than Waterloo; he attacked a despotism more subtle but not less potent than that of Napoleon. In the sad irony of fate, he fell a victim of the foe he so ably combatted. Possibly when future times shall make a keener evaluation, some of the figures we esteem so tremendous will shrink to a meaner stature, and with the passage of the years the captains and the kings will fade to a deserved obscurity, while the true benefactors will continue to grow with the growth of knowledge of their achievements and appreciation of their accomplishments. Many illustrious men lived between the years 1781 and 1826. Who knows but that ultimately men shall adjudge that the most illustrious of all was the dry, meager, asthmatic and phthisic Breton whose life was compassed by that span, Dr. René Théophile Hyacinthe Laënnec.

W. F. C. NELSON.

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I

LAËNNEC'S BIRTH AND FAMILY

IT WAS Pasteur's injunction that we should reverence great men, and it is in such spirit that we commemorate this year [1926] the centenary of the death of Laënnec.

Our information concerning Théophile Laënnec is mainly derived from Rouxeau's authoritative study of his life and work. This biography is in two volumes: the first, published in 1912, deals with the subject up to the year 1806; the second volume, published in 1920, deals with events subsequent to that date. Rouxeau's work is based on the family letters and papers, to which he gained access some

eighty years after the death of Laënnec. From his intimate knowledge of the subject he gives an authentic portrait, and he avows his desire to depict, not the Laënnec of tradition, intellectual and frigid, but the man revealed by his studies as forceful, enthusiastic and animated. In the sketch which follows, we shall be mainly dependent on Rouxeau's painstaking compilations.

The paternal grandfather of Théophile was Michel Laënnec, who, in 1764, attained the office of Mayor of Quimper. He was a man of powerful physique, a conscientious parent, a severe disciplinarian and a hard worker. He pretended to some cultural attainments and cultivated the arts of writing and oratory. He was twice married, the first time to the daughter of an ex-mayor. The children of this marriage were Théophile Marie, Guillaume François and Michel Jean Alexandre. Their mother was of the family of Guesdon of Anjou, a family of some consequence in Quimper, strongly connected, and boasting in its ancestry a minor poet who, in 1593, had published "Les

THÉOPHILE MARIE LAENNEC, FATHER OF R. T. H. LAËNNEC,
BY AN UNKNOWN ARTIST.

Loisirs de Rodope." Another notable of the family was a great grand-uncle, Hyacinthe Morice, the historian of Brittany. Of these sons, Théophile Marie became the father of the famous physician, while his brother, Guillaume, who was a doctor of medicine and a graduate of Montpellier, later powerfully influenced his nephew's career. The father of Laënnec was a person of excellent physique and sound health, consequently of a winning and joyous nature. His profession was that of a lawyer, but his talents were those of a literateur. In those circumstances he failed to be successful. His ability in writing a poem did not atone for his weakness in preparing a brief; the constant intrusion of his poetical creations into the business of the bar was not calculated to advance him in the law, nor was his poetry of an order to win him fame in literary circles. His law was not sound, his poetry was not sublime, his tastes were not practical. Hence he pursued an errant career, passing from one situation to another, securing his different places by the judicious flattery of the politically

powerful, and in later days not scrupling to try to use even his distinguished sons for the same purpose.

Michelle Guesdon, the mother of Laënnec, was said to have been of feeble constitution. We know that as a child she had rickets, and it has been conjectured that she was tuberculous. Certainly her three brothers had died in their youth, and her two sons were possibly consumptive. It has been argued that a great man is always the child of a remarkable mother, but unfortunately we cannot judge the truth of the dictum in this case, for little is known of Michelle Laënnec; not a letter of hers now exists, and only one of her signatures. In connection with the speculation that the geniuses of the race are born of parents more advanced in years, it is interesting to note that the father and mother of Laënnec were respectively thirty-three and twenty-six years of age at the time of their marriage. Since they were cousins, a special dispensation was necessary to allow the union.

Quimper, where, at 2 rue de Quai, Laënnec was born, is located in Brittany at the junction of the rivers Steir and Odet. It is a charming country town with a beautiful cathedral, near which now stands the famous statue by LeQuesne, erected in 1865 by the physicians of France, to the memory of the town's most distinguished son. The Englishman or the American, on first beholding it, cannot but regret the contrast in his own country, where there is a distinct paucity of memorials to great physicians. Osler noted that there were more hospitals named after physicians in Paris alone than in all Great Britain and America, and while the memory of Laënnec, Bichat, Broussais and Bernard is thus preserved, the names of our great physicians sink into undeserved oblivion. Beautiful hills covered with woods and heather encircle the town of Quimper; the countryside, as I recall it, is most picturesque, adorned with hedges of broom and gorse which divide fields, gay with cowslips, buttercups and daisies. The hedges are filled with blackberry bushes,

the fruit of which is despised by the peasants. Bird life is conspicuous and varied, with magpies, cuckoos, nightingales, skylarks and finches. The country was not less attractive in the time of Laënnec, for in 1788 the English traveller, Arthur Young, describes the walks around Quimper as among the most beautiful in France.

In the picture shown, the last window to the left opens from the room where, on the seventeenth of February, 1781, René Théophile Hyacinthe Laënnec uttered, as the French would put it, his first infant cry. He was baptized the next day, and derived his names from his godfather, René Guesdon, and his godmother, Hyacinthe Guillemette.

The origin of the name Laënnec is doubtful. It may be from "lenn," a reader, or from "laen," a pond or lake. Thayer, in one of his charming articles on Laënnec, tells us the name was originally written Laennec but pronounced Lennec. One of his biographers later placed a dieresis over the vowel, and thus made the name one of three syllables. None of the

2 Rue de Quai, Quimper. The House in Which Laennec Was Born. From Rouxeau.

family so spelled or pronounced it, the collateral descendants still pronounce it in two syllables, though the French people generally use the incorrect pronunciation. Of the three names we shall use Théophile,

or any hints of that juvenile erudition that astonishes the student of Grotius. The other members of the family were Michel, who was born in 1782 and who was named for his grandfather who died about this time, and Marie, born in 1785. Another sister was born in 1786, but she only survived her baptism. Two days after her birth, when Théophile was six years old, the mother also died. The French have a proverb which runs: "A tuberculous mother may give birth to one child, rarely to two, and never to three children." If this proverb, which probably epitomizes generations of observation and experience, be true, the fact that Madame Laënnec gave birth to four children and practically died in childbed would seem to negate the idea that she was tuberculous.

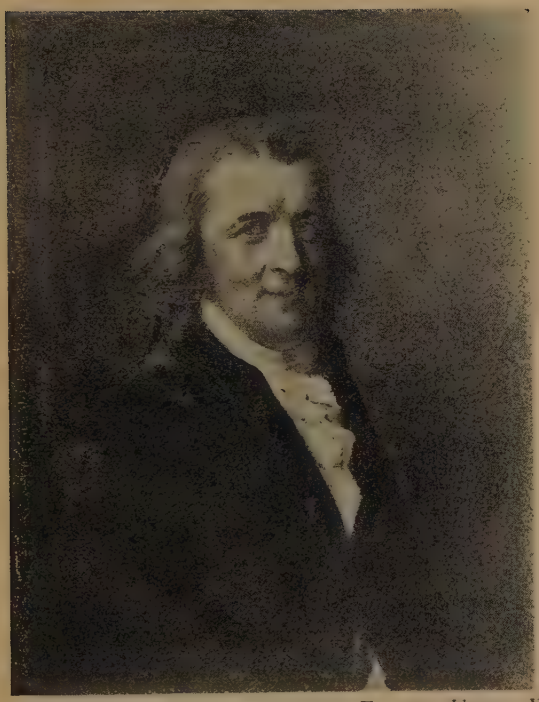
II

BOYHOOD AND SCHOOL LIFE

THE two boys, Théophile and Michaud, were taken by their paternal uncle Michel, rector of a parish in Elliant, with whom they lived just one year. This clergyman later became one of the émigrés to England, where he finally succumbed to consumption. In 1788 the boys were sent to their other uncle, Guillaume, making the journey from Quimper to Nantes by sailing boat. This uncle, once a practitioner in Quimper, had later moved to Nantes after his marriage with a sixteen-year-old maiden from Rennes.

Guillaume Laënnec had graduated as a Doctor of Medicine at Montpellier, where graduation was easy for those who did not intend to practice in that vicinity, and had further studied under Hunter in England.

But on his removal to Nantes, he discovered that the faculty had imposed restrictions on the practice of medicine, and that he must repeat his entire medical education under that faculty. When Guillaume had done this, and was on the point of being licensed to practice, it was found that he was married, and further technicalities had to be overcome. Finally a license to practice was procured from the parliament of Brittany. Even then, he was for long "held in quarantine" by his colleagues, but he needed only opportunity to prove his worth, and so signally did he serve when the last obstacles of legalism and provincialism had been surmounted, that he was elected rector of the univeristy of Nantes at the early age of forty. He had a good figure, though there was a tendency to embonpoint, was of a fresh complexion, had a long face, the mouth of a jester, and a slight inferior prognathism. His interest was not narrowly medical, he delighted in the humanities, really knew his Ovid, Vergil and Horace, and like his father, was something of a writer and orator.



Guillaume-François Laënnec, the Famous Uncle Who Inspired Laënnec. Painted by Descarsins.

His disposition was choleric but affectionate, "tête volcanique mais coeur chaud." His wife was of Armorique family; their one son, destined to become a famous lawyer, did not exhaust their capacity for affection, so they were delighted to receive into their home these two motherless children. The home itself had a commanding view of the Loire, and was unusually sunny. For three years the two boys were students at L'Institution Tardivel, where the ancient discipline prevailed, and it is some tribute either to the capacity for study or the skill in evading study of young Théophile that the punitive rod was not once applied to his palms or his pants. The one punishment recorded was that he was kept on a chair in his uncle's house while the other children were out playing, and the passage of twenty years did not serve to erase the bitterness of that memory. On the whole his life must have been pleasurable, and if we can believe that coming events may cast their shadow before, not the least pleasurable of his hours must have been those when he accompanied his

uncle on his professional rounds, and submitted to a catechism on his academic progress.

In 1791 Laënnec was placed in the Collège d'Oratorie, where he was instructed in religion, political science, orthography, grammar, geography, Latin prose and verse, but not in Greek. A year later his progress is attested by two accessits to honor prizes, and a first prize in composition. The same year, An IV *de la Liberté*, the boy wrote a fable modelled on LaFontaine, entitled "La Barque et le Vaisseau," and translated the First Eclogue of Vergil into French verse. The poem is strongly bucolic in flavor and a natural observation is made in the realistic line: "Les vaches de Toinon s'arrêtent pour pisser." Further evidence of his interest in poetry is found in another poem he wrote as a boy of twelve, called "Fils du Laboureur." His good uncle, fearful that a baneful heredity was at work, and that the energies of the boy would be dissipated and his career marred by devotion to the Muses, was alarmed over his poetry, as at a later

date, and with as little cause for apprehension, the parents of Pasteur lamented their son's devotion to pastels. Their holidays the brothers largely spent with an aunt Desirée at her home on the banks of the Erdre, enjoying the country pleasures of boating, fishing, hunting blackbirds and rabbits, and in riding a submissive jackass.

But while Théophile Laënnec was poring over his Eclogues or fishing the peaceful waters of the Erdre, tremendous events were in progress in his native land. With the calling of the States-General in September of 1789 began that sequence of events which we call the French Revolution, and with the emergence of Mirabeau commenced that procession of notables across the stage of French history, which, when Mirabeau himself, and Danton and Robespierre and Marat and Carnot had passed, was arrested by the arrival of one who came to stay, the Corsican lieutenant of artillery, Napoleon Bonaparte. No one who lived in France for the ten years that followed the calling of the States-General was unaffected by

that cataclysm. Fiscal oppressions and legal anachronisms had resulted in penury and tyranny for the masses, and such penury and such tyranny as could not long be supported by a peasantry and a bourgeoisie that had even been patient under the caprice and the exactions of the fourteenth Louis. And so we have a revolt started by the middle classes which the middle classes could not control; we have three constitutions in three years where before was no constitution at all; we have the mad excesses of the Terrorists, a tripartite Civil War, with the Mountain against the Plain, and La Vendée against both, and we see a cabriolet driven through the streets of Paris on January twenty-first of 1793, from the Cricuit of the Temple to the Square of the Revolution, and we know that the son of sixty kings, now Citizen Louis Capet, is on his way to the guillotine. Such was France from 1789 to 1794.

The ferocity and ingenuity of the Parisian mob gave the capital an unenviable primacy in the sanguinary excesses of the Terror,

but if Paris was first, at least Nantes was an untiring second. Farington notes in his Diary that half a million people perished in the Terror, and of these unfortunates, three thousand met their death at Nantes. The guillotine proved too slow an instrument for the zeal of the rabble, and tying naked men to naked women, they flung them into the Loire to expedite the slaughter. But even the "Noyade de Loire," though it proved faster than the guillotine, was yet too tardy a means, and they fell back on artillery and mowed down their victims with chain shot. Even then the Parisians were not satisfied with the efforts of their provincial comrades and Carrier, the villainous lieutenant of Robespierre, came to Nantes, and in the Laënnec home unfolded a plan worthy of a Caligula, to destroy half the population of Nantes. The forces of the natural order seemed to conspire with the wrath of man to that end, for typhus doomed many who had eluded the guillotine and the river, and some who escaped all three yet perished of

hunger. Before he was fifteen years old Théophile had seen fifty heads fall into the basket under the guillotine outside the windows of his home, he had seen his uncle thrown into prison for six weeks on suspicion of not being in sympathy with the de facto government, and he had marched in the parade and carried a sabre on the occasion of the Fête de l'Être Suprême. He had undergone too his first act of apprenticeship in the art of Hippocrates, and while the uncle Guillaume was busy with the wrecks of war and typhus at the Hôtel Dieu, where he was physician-in-chief, the nephew was making lint bandages and dressings.

Despite the political confusion, the education of Laënnec went steadily on. His college was turned into a hospital, but in 1793 he entered a new school, the National Institute. One hundred and twenty boys continued in daily attendance through the war, the Terror and the typhus. The 14th Fructidor, *An* 2, at the distribution of prizes, Théophile captured the one in Latin; all the rest went to his brother Michaud.

Théophile then entered for a course in physics at L'École Polytechnique, anticipating that he would later study engineering. His youth and the uncertainty of the times led his uncle to frown on this proposal. The winter of 1794–1795 was extremely cold, and in January the lack of fuel led to the closing of the National Institute. It is told of Laënnec at this time, when the pupils must *tutoyer* their teachers, that he was enjoying a welcome beam of sunlight at the school when it was intercepted by an instructor, whereat the lad exclaimed: "Ôte-toi de mon soleil."

The 26th Frimaire, *An* 3 (December 16, 1794), we have the first of a melancholy sequence of letters that have been published in which Théophile requests his improvident father to forward old clothes which his aunt would cut down for him to wear to school, and money to pay for books and the schooling itself. To the American it is an alien note that neither of the correspondents ever seemed to think that the boy might in some measure support himself by work-

ing, as he would do here in like circumstances. In the same letter he confided to his father his desire to become an engineer. Michaud, too, was casting about for a career, and his fervid love for the sea and his ambition for a marine life continued till they were dissolved by a trial trip that proved very rough.

The return letter from the father promised to defray all the expenses of the technical education which he was willing his son should pursue. But the good man wrote in the inflation of a new love, not for his son, but for the second wife he had lately taken to his bosom. The widow who had just cast her lot with the erratic lawyer was possessed of a comfortable income, and whether it was merely the ecstasy of his love for her or the more substantial hope that he would now control her fortune that led him to promise so largely we cannot know; but we do know that his help was largely verbal, and that he seemed to consider the promise of support fulfilled when he had forwarded to his ambitious son some cast-off clothing. The

permission to become an engineer came too late, for, under the promptings of an uncle whom humanity has much reason to thank, the young student had decided to study medicine.

Nor had his life lacked indications that such might eventually be his great interest. Neither the agitation of the times nor the impecuniosity of his father with its resultant bother had kept him from the enjoyment of life, and that enjoyment he found largely, even to the end, in physical exercise, in hunting and in walking in the country. Each phase of natural history interested him. He collected pebbles, insects, plants and birds' eggs. The instinct of a hunter was gratified by the finding of a duck gun in the woods, and his joy in its discovery was probably only equalled by his misery when he had to surrender it at the barrier on his way home. In his love for the natural world, in his curiosity over its flora and fauna, in his variety of collections, and in his keenness of observation, he was one with many of the master spirits of medicine.

Even so had Jenner as a schoolboy collected fossils in the Oolite formation at Cirencester, and as a young physician won fame as a naturalist by his intensive study of the cuckoo. It was Jenner, too, who kept the great anatomist John Hunter supplied with natural history specimens. Koch, who was to discover the bacillus of tuberculosis, unconsciously prepared himself by his thorough studies in geology and botany. His botanical interests, and his collection of the wild flowers of Europe no doubt led Lister to his first careful observations on simple skin conditions like goose-skin, which were to develop the idea of bacterial infection of wounds, and so lead to antiseptic surgery. It is true that Pasteur was not directly a student of natural history. This is amusingly confirmed by the story of his visit to Fabre, where he displayed his ignorance of the silkworm and did not conceal his surprise that there was something in a cocoon which could be heard on shaking. But his pastel paintings, some of which are Holbeinesque, indicated that close observa-

tion of Nature that later enabled him to give such exact portrayals of his father and mother and many friends. There can be little doubt that his close scrutiny of his sitters was a stepping-stone which at a later time enabled him to pick out the right-handed and left-handed crystals of the tartrates, which resulted in his first great discovery in chemistry. This, in turn, led to his studies in fermentation which developed into his immortal work in bacteriology and immunization. So it was that in the year 1795, at the age of fourteen and a half years, equipped with a love of natural history,[1] fortified in his decision by the support of his uncle, and with a stock of old clothing which was of some use and the promises of his father to help which were of no use at all, Théophile Laënnec began the study of medicine.

[1] J. J. Audubon as a lad of eight years was living in Nantes during the Terror, and collecting eggs, butterflies and insects along the Loire. It is well within the bounds of possibility that these Nature-loving boys were friends.

(The Republican calendar had been established in 1793. The year began at the autumnal equinox, September 22. There were twelve months, each name of a month being significant of some climatic or agricultural feature. The twelve months were Vendémiaire, the month of vintages or grape-gathering, Brumaire, the fogs, Frimaire, the hoar-frost, Nivose, the snow, Pluvoise, the rains, Ventose, the winds, Germinal, seeding, Floreal, the flowers, Prairial, the fields, Messidor, the harvest, Thermidor, the hot month, Fructidor, fruitage. This nomenclature is incomparably more rational than our own, celebrating as ours does the forgotten names of Mars, Janus and Julius, and further calling the ninth, tenth, eleventh and twelfth months the seventh, eighth, ninth and tenth months. This explanation is made that the reader may be able to identify the season of the year from the French names we shall from time to time use.)

III

THE STUDY OF MEDICINE

FROM 1795 to 1800 Laënnec studied medicine at Nantes. He commenced under excellent teachers. Darbefeuille was surgeon-in-chief at the Temple de l'Humanité, later known as the Hôtel Dieu. He taught physiology, pathology and therapeutics, all with an energy that made him a corps of professors in himself. He put everything before his students in picture form, as a botanist might. Bacqua, another teacher, was a distinguished surgeon. He had twice performed caesarian section on the same woman, saving the mother and children. Under these and other teachers, Laënnec began his studies in the autumn of 1795, at the age of fourteen years and seven months. The first five months were devoted to anatomy and dis-

section, the two following "á la médicine opératoire"; in the second semester, beginning April 20, he had physiology, pathology, and therapeutics for five months.

One can in some measure judge of the conditions in the hospitals then by the conditions there now. In my visits to the hospitals in Nantes and other places during the World War, I could not but note the comparative lack of cleanliness and the scarcity of plumbing. Awaiting orders at Blois in 1918, a major of cavalry made the penetrating criticism to me that the French people would be all right if they had fewer mirrors and more plumbing! However, Guillaume Laënnec was wiser than other children of his generation, he had reformed abuses and cleaned up the hospital, so that now each patient had a bed, and the curtains were not infected with vermin. The walls were whitewashed, and the mortuary, which had been in melancholy contiguity to the wards, indeed opening into one, had been removed to a desirable seclusion. The dissection room was under a ward. A judas,

L'Ancien Hôtel-Dieu de Nantes. The Hospital in Which Laënnec Commenced His Medical Studies.

or peep-hole, allowed the water to run from one floor to the next. The Hôtel Dieu had 400 beds, and about 150 childbirths a year. Uncle Guillaume had charge of 100 fever beds, most of them occupied by sailors with tropical diseases. He was also head of La Paix Hôpital, and it is probable that Théophile did his first work there.

A fellow-student, Fizeau, five years his senior, was Laënnec's first friend. Even in his first year of study, Laënnec gave some indication of the thoroughness and originality that were to mark his career by drawing up a descriptive history of a patient in which he evinced good method and keen observation. He also continued his natural history studies, now stressing mineralogy. He ransacked the countryside for insects, plants and minerals, which he later arranged in order in his bedroom. The uncle writes to the father to voice his pride in the collection, and to voice, too, a little fear that his industrious nephew is spending a disproportionate amount of time in this way. Laënnec studied in the Botanical Gardens of Nantes

which were near his home; Debuisson, a fellow-townsman, also possessed a natural history collection, the nucleus later of a museum, of which the boy availed himself. François Le Meignen, head of the Jardin des Apothecaires, whose children were the inseparable companions of Théophile, and who was himself, as the boy said, "his third father," also facilitated his endeavors in this direction. The boy raised rabbits with his friends, and found that they multiplied as in "Pigs is Pigs."

Another extramedical work was the study of Greek, which the uncle regretted he himself had not thoroughly learned. Under the urgings of his uncle, he enrolled at L'École Centrale. At this school Théophile also perfected his Latin so that in time he learned to speak it with a rare facility, and regretted it was not the international medical language of the world. All these things further endeared him to his uncle, and when in May, 1796, Guillaume lost a twenty-months-old child, "unconscious victim of Revolutionary conditions," he

writes of his anguish to his brother, and voices his hope that God will spare Théophile to him, and that the achievements of the one may console him for the loss of the other. It was at such a time that the father with his infinite capacity for the unseasonable proposed that Théophile return to Quimper to attend a school newly opened there, but the uncle demurred, and the project lapsed.

The boy was now awakening to manhood, or to use the figure of Rouxeau: "La chrysalide devient papillon." He was more careful in his appearance, he desired better clothes, and wished to learn some of the lighter accomplishments, music and drawing, and to remove his awkwardness by a knowledge of dancing. These desires sprang partly from natural conditions, and partly from a wounded *amour-propre* that he should be deficient where his friends seemed to excel. All these needed money for their attainment, and it was a struggle to get it. The father was profuse in advice and niggardly with funds, indeed up to this time the boy

had received from his doting parent exactly a double louis. But in some way obstacles were overcome, the lad learned to dance and developed a Pepysian passion for the flute. At one time he had determined to take service on a corsair to earn money, and this without consulting his uncle, but the plan faded out eventually. In the meantime Ulliac of Rennes had become his chief surgeon and the boy became devoted to him. Even at this time the uncle, while writing to the father of the boy's fine curiosity and zeal for new objects of study, fears that in his youthful enthusiasm he will overdo, and that his none too rugged physique will not stand the strain of sustained overexertion, a prophecy which events amply bore out.

About this time Théophile's stepmother invited him to Quimper for a visit, but omitted to defray his anticipated travelling expenses. The lady's motives were partially political, she was herself a royalist, her first husband had died an émigré, the political atmosphere which Théophile

breathed was abhorrent to her, and she probably welcomed the opportunity to remove him for a time to what was to her a purer air. So Théophile prepared for his journey. The uncle wrote to his brother that the boy expected on his visit home to send reports on natural history observations and to collect specimens, but the cautious uncle, fearful for the boy's health, warned that he be not allowed to hunt and swim too much. The same letter carried high praise of the accomplishments of Théophile in Latin, literature, chemistry, natural history, anatomy, surgical dressings and minor operations. It also made clear that the boy was coming for a two months' visit only, and that it was not purely a pleasure trip, as the work planned would show. Medical studies must go on even in the holidays, for medicine is not like law: "Notre état est une chaine qu'il faut trailler á toute heure du jour et de la nuit."

The boy, meagerly provided with funds, waited eight days for a sailing boat and a favorable wind; neither came and, dis-

heartened and rendered impatient by the delay, he set out on foot for Quimper, a distance of about thirty miles. Arriving home, he was disappointed to find his father away on business. But he visited his cousins, hunted partridges and wrote letters to his father to hasten his return. The interim was agitated by the attempts of the stepmother to induce Théophile to give up medicine, in which design the uncle interfered and implored the father to send Théophile back, for he had planned that the youth should succeed him in his practice. He also pointed out that the boy was not suited for business, he was not orderly, was careless of self-interest, and was easily deceived.

Finally, either to escape the arguments of his stepmother or because of the genuine love he bore his father, he set out for Saint Brieuc, thirty-five leagues away, on foot, to join his father. Rouxeau imagines the meeting, the simple joy of the boy and the emotional eruptions and histrionic gestures of the father. The main part of the

business that had detained the provincial Blackstone was, as usual, literary rather than legal, for the good man was always more interested in epigram than in equity. A coffee-house keeper had changed the name of his place from Café de la Justice to Café du Commerce, and this was an opportunity for Théophile's father to make a neat epigram. "Why the change," he asks, "hasn't Justice for long been a Commerce?"

The visit came to an end finally, and Théophile returned to Nantes on foot, with a silver-headed cane in his hand and a gun on his shoulder. But on his return he was restless and could not work. Indeed he had enough to worry him. His trunk, on the return journey from Quimper, had been damaged and some of its contents ruined, a serious loss to a penniless boy. He had packed some natural history objects, and a red powder from some specimens he had collected in passing a mine had ruined his clothing. He had little left but the clothes he wore, and in writing his aunt for money to repair the loss, he says: "Si vous tardez,

j'irai de mal en pis; vous m'avez trouvé républicain, je deviendrai sans-culotte." He also needed money so that he might take courses in chemistry and physics, which he lacked: "Each moment that I lose seems to me a century." The father rose to the occasion with a lengthy epistolary admonition to his son to clothe lightly, to affect a Spartan simplicity of life, to be frugal in habit, and to exercise, to swim, to hunt, to ride, to throw stones. He did not neglect to strike a Chesterfieldian note; the boy must learn cooking, dancing, singing, drawing, poetry, history and political economy. Then this later Polonius counselled his son to seek good company and avoid babble. Excellent as the advice was, and worthful as it must seem to posterity, it did not put stockings or shirts on a boy who lacked both.

In 1798 things improved somewhat. The father finally sent a small sum. In return, Théophile sent his father a picture he had done, saying that he was still as far from Raphael as was the subject from Napoleon. Two of his sketches have been discovered,

one of a consumptive, following a description of Aretaeus, the other of a group of people which he had drawn to illustrate "La Guerre des Vénètes." The pictures are of historical rather than artistic interest. The money received enabled him to study Latin and Greek, art and dancing. Playing the flute, frequenting the theater, and writing love verses to one Nisa, were his avocations. But though the uncle disapproved this multiplicity of hobbies, his medical studies did not suffer by them.

In the spring of 1798, possibly due to over-fatigue on his long country walks, he developed a remittent bilious fever, which Thayer suggests was typhoid but it may have been an early tubercle attack. The fever was high, the respiration was embarrassed, there was great prostration, and a consultation was held. A laxative was given, eight stools resulted; there was nosebleed, stomach spasm and, for a time, pain in the side. However he made a complete recovery, and was taken to the country to convalesce. There, to his uncle's

consternation, he devoted his energies to the flute. For a time he practiced for six hours a day, but, as Thayer remarks, no man with an upper lip like his could long keep away from it.

His passion for this instrument calls to mind another Celt, who was a famous flutist, a famous poet, a doctor, and at least an amateur in natural history. The parallel between the two, in profession, in love of music and poetry, in interest in natural history, and in racial strain, is rather striking. But Oliver Goldsmith made as little impression in medicine as did Théophile in poetry. His work on Natural History, though it is, as Dr. Johnson said it would be, "very readable," is notoriously inaccurate. His ability on the flute enabled him to travel through Europe without funds and yet support himself, and his emotions are incorporated in one of the finest of poems, "The Traveller." Another great Celtic physician of Cornish origin was Osler, whose life was not dissimilar. Both as boys delighted in Nature studies and in learning. The

Gaelic and the humanities fascinated them. As physicians both devoted their energies to pathological anatomy in the search for Truth. These two famous physicians made exact observations and were averse to speculation. To each medical history was of the greatest importance and with it they illuminated their excellent lectures and treatises. While Laënnec immortalized himself by his anatomical studies, especially in tuberculosis, and in clinical writings and the invention of the stethoscope, Osler led in the elimination of tuberculosis and early suggested the binaural instrument.

In the fall of 1798, with little zest for work, Laënnec returned to school, and on account of his illness in the spring, his uncle hesitated to urge him along. He was now seventeen years of age, and his uncle wrote his father begging him to prepare to send him to Paris to continue his education, and to make a provision of 1500 francs a year for that purpose.

In the spring of 1799 Civil War again broke out. The lad was sent to Petit-Fort

for grain from the harvest, but was robbed by Chouans on his return. About this time he passed his examination for Officer of Health, a short course that allowed graduates to practice on the peasantry. He made another trip to Saint Brieuc to visit his father, and under his encouraging tutelage soon wrote a poem entitled "Ina." In this poetic ecstasy, he asks Love to embrace the air he breathes:

Doux souvenirs! Ah! Fuyez de mon coeur!
Par vous Amour, en ces lieux plein d'horreur,
Embrase l'air que je respire . . .
Je brûle! Je meurs! . . . O, délire!
Je ne puis croire à mon malheur. . .
Mon coeur rempli de ton image
Sur ces gazons, sous ce feuillage.

Théophile stayed three months in Saint Brieuc, the while the angry and suspicious uncle, well knowing the inertia of the father and the ill-will of the stepmother, and fearing that even yet his purposes for Théophile would be frustrated, urged upon the parents the necessity of sending the

boy to Paris and the provision of adequate support. The father finally agreed that Théophile should go to Paris, where he had been already enrolled, and promised him 900 francs per year. The youth immediately returned to Nantes with this cheerful intelligence, but his uncle, wiser in experience, would not let him go to Paris till the money was in hand. What was the bitter disappointment of both when the money was not forthcoming. For the fifth time poor Laënnec took the course at the Hôtel Dieu, repeating work he knew by heart, and robbed of the company of his associates who had gone on to the capital. He was now eighteen years of age, and was gaining excellent experience from his work with the wounded soldiers. He was destined to come into closer contact with war, however, for the Chouans attacked Nantes itself. Théophile was mustered into the National Guard, furnished with a rifle, and went out ready to revenge himself for the stolen wheat. Three weeks later the cannon of Nantes thundered "joyeusement," and the news rapidly spread that

General Bonaparte was First Consul of France. That was November 9, 1799.

Théophile was commissioned and joined an ambulance corps, the uniform costing more than he received in pay. His unit went to Vannes, and each of the day's events was recorded by the young soldier in the evening, writing with his knees for a table, his left hand holding the inkstand, and his paper illuminated by the feeble light of a single candle. The war stimulated him to verse as well as to prose, and he produced an allegorical piece, "La Guerre des Venêtes," in which he incorporated his "Ina." He signed with the anagram Cenneal, manifestly his name reversed. He also developed a system of shorthand. It was rather elementary: dans became ds, ation was aon, beaucoup was bp, and so forth.

In 1800 the indefatigable uncle was still urging his careless brother to provide a Parisian training, and inciting him to resolution by the recital of the boy's virtues and zeal. Meanwhile Théophile could not collect his pay for his military service, the hospital

paid little, and paid that little late. His heart was broken by hearing that his father had sent Michaud to Paris while he, the eldest son, was ignored. Hope deferred maketh the stoutest heart sick, but hope realized maketh the sickest person well. The gloom of the uncle and the bitterness of the youth vanished with the receipt of a letter from the father enclosing a credit of 600 francs, and the combined urgings and plaints of nephew and uncle had borne the first of long-delayed fruits. After such a wait, after so many disappointments, after procrastinations that would have tried more phlegmatic natures than that of the fiery young Breton, was the first of his desires realized. In his impetuosity he immediately set out in a carriage for Angers, leaving his devoted uncle in bed with some indisposition. Before he had rid himself of the febrile cold with which he started from Nantes, he was well on the way, walking from Angers to Paris. He left Nantes April 20, 1801, and in about ten days he had reached Paris. "L'oiseau avait pris sa volée." The winter of

his discontent was now made glorious summer. It was a happy day for Théophile when he tramped wearily into the Latin Quarter in search of his brother.

IV

STUDY IN PARIS

THÉOPHILE joined Michaud in his lodgings near the Luxembourg Gardens, and immediately took up work in L'École de Médecine, which is today occupied by the Faculty of Medicine. On 12 Floreal, *An* 9, he entered his name at the Charité, in the clinic of Corvisart, for the courses in medicine, hygiene, materia medica and pathology. The Parisian medical world was at that time dominated and divided by the two famous teachers, Corvisart at L'École Anatomo-Clinique, and Pinel at L'École Philosophique at the Salpêtrière. Laënnec threw in his lot with the former. Corvisart was the founder of French clinical medicine. He especially stressed bedside instruction and thorough training in autopsy work. His alertness and

enthusiasm attracted, as his brusqueness and sarcasm repelled, Laënnec. Corvisart's assistant was then Bayle. He was seven years the senior of Laënnec, but the latter was greatly attracted to him. Their origins, educations and tastes were curiously similar, as were their destinies, for each won fame for his work in the study of tuberculosis, and both succumbed to the disease. Laënnec studied carefully and methodically; no class, no autopsy, escaped him, and he as assiduously collected the aphorisms of Corvisart, which he later published in thirty-five articles. Bichat was another favorite; his genius was already attested by numerous publications, and just then he was preparing, at great effort, a treatise on pathological anatomy. Laënnec was advanced rather beyond the general run of students. He knew English, possibly some German and Italian, Latin thoroughly and Greek fairly well. He took courses in anatomy, physiology, chemistry, pharmacy, hygiene, pathology, materia medica, botany, legal medicine and medical history. With all this he found time

to enter L'École Centrale for Greek; his ambition was to read Hippocrates in the original. He also took a special course in anatomy under Dupuytren, who was three years his senior. His assiduity and genius did not long go undiscerned, his teachers saw in him another Bayle, and selected him for the Society of Medical Instruction, which represented the élite of the students.

In 1802 Bayle gave his graduation thesis, which Laënnec took down in shorthand, as he also did the *viva voce* examination. In March of the same year Laënnec noted in an autopsy of a heart disease case the ossification of the mitral valve, with dilatation of the ventricle. This constituted his first published work. The father of pathological anatomy, and, as such, the idol of Laënnec, and one of his formative teachers, Bichat, died that year. About this time Laënnec reviewed Benjamin Bell's treatise on venereal diseases. He found that clinicians had confounded peritonitis with enteritis. He noted peritonitis at autopsies, and following his study of six carefully worked up autopsies, he wrote an article on this disease

which contained a warm tribute to Bichat. With his comments, this communication was a complete story of peritonitis. Every type known today was reviewed; he even described the *facies grippé*. At the age of twenty-one this treatise won for the student large and immediate fame.

Laënnec's two friends, Brute and Fizeau, carried off the two first prizes in 1802. At the same time Dupuytren announced that he would publish a treatise on pathological anatomy with Bayle and Laënnec as collaborators. It was to follow the work of Bichat, who had grouped lesions, not according to organs, as had Morgagni, but by systems; i.e. serous surfaces, bones, tubercles in lungs, and so forth. Laënnec had the notes of Bichat's lectures taken by Fizeau

* Bichat died of tuberculosis at thirty-one. He carried on his work in spite of pulmonary hemorrhages. Corvisart wrote of Bichat, "He died on a field of battle which counts more than one victim; no one, in such a short time, accomplished so much and did it so well." Bichat wrote of pleurisies and pulmonary hemorrhages producing phthisis and gave good accounts of the symptomatology and pathology. He suggested the disease might be due to a virus.

and Buisson. These he decided to publish himself. In the same year the *Journal de Médecine* contained a report by him on a case of suicide committed with a razor. He also wrote abstracts of his friends' theses on Physiological Phenomena and on Amenorrhea. Later in the year he described the arachnoid membrane which Bichat had never dissected but had supposed to carpet the interior of the ventricles. Here he was in error, and Laënnec too was misled by the autopsy in his zeal to uphold Bichat. He mistook the superficial layer of the nervous tissue for membrane. In February, 1803, Laënnec described accurately and indicated the use of the synovial capsule of the shoulder, which is known today as the subdeltoid bursa. His next anatomical discovery was that of the capsules which cover the viscera, such as the liver. He showed that the fibrous capsule of the liver, named Glisson's capsule, was a prolongation of the covering of the liver and was not muscular. He described a similar capsule for the spleen and the kidney, but found

no trace of it on the heart or the intestines, and less defined on the lungs.

Théophile's financial progress did not match his academic. He was practically penniless in Paris, and it was necessary, as of yore, for Uncle Guillaume to intercede with the improvident father. Laënnec was present at the examinations of his brother Michaud and forecast, in a jubilant letter to his father, his brother's success. He was right, for Michaud carried off three first prizes, in literature, in Latin literature and in general grammar. He also received the first prize in *belles lettres* at a concourse of the three central schools of Paris. Laënnec also wrote his father with justifiable pride of the success of his publication on peritonitis and mentioned that one of his admirers had proposed his name for La Société d' Émulation. He appends the less welcome intelligence that he and Michaud are delinquent sixty francs on their restaurant bill. In general his letters to his father are long and entertaining. The prudent father thought that such brilliant students might well be the admiration of their teachers,

and he suggested somewhat baldly that his sons solicit their teachers for employment for the father in Paris. To that embarrassing request Laënnec could only reply that though he worked every day with Corvisart, the latter hardly seemed to recognize him. The father was destined to languish yet longer in the obscurity of the provinces.

Théophile had arrived in Paris about the time that Napoleon conciliated one of the forces hitherto opposed to the Revolution by the celebrated Concordat, which reconciled France and Catholicism. He probably shared the popular enthusiasm that greeted this rapprochement. It is possible that his interest in religion is in part at least traceable to the influence of his uncle, the rector of Elliant, during the year the impressionable boy spent with him. Certainly religion had one important, if indirect effect on his life. The accident of politics took him from the home of a priest and put him in that of a doctor and, to quote Rouxeau: "La médecine doit peut-être à la constitution civile du clergé ses decouvertes immortelles."

Interests that had been latent now became visible, and at a time in life when many students abandon religion, he embraced it. One remembers in this connection Kipling's question as to where the bad medical students go to and the fine physicians come from. Théophile's hero-worship of Bayle, who was a believer, was also an indubitable factor. Then, too, eighteen months in Paris without a holiday had weakened a physique none too strong, and the young medical student appears to have been suffering physically. Like Pascal, he may have turned at such a season to the consolations of religion. Certainly its acceptance augmented that spirit of tolerance and kindliness that had always distinguished his character, just as it had mollified the spitefulness and acerbity of Bayle. And it was not uninfluential in the construction of his ideals. One of the letters that told of Michaud's success confided his own ambition to become a professor in some medical school. His only ambition was to make his life useful, and he wrote that money, success and fame could, without that, yield

no ultimate satisfaction. One of the classical quotations that stud his letters is "Gloria mundi peribit, veritas Domini manet in aeternum."

He had need of consolation other than the temporal, for the temporal was not often forthcoming, and we have witness both to his hard work and his pitiable poverty in a letter that was started February 28 and finished March 13, in which he begs for money, especially that he may buy books. Again the insensate father tried to get him to return to Nantes, and again the watchful uncle intervened.

The Government had decided to donate prizes for students at all the special schools of Paris, and this was hardly announced when the examinations began. Laënnec entered for all the tests at the medical school. In surgery he was asked to amputate an arm at the shoulder joint. Later Dubois was overheard telling Dupuytren that Laënnec's incision with the bistoury was charming; he also admired the cutting of the tendons and the opening of the capsule as he turned the arm, the bone coming out so

easily. In one question he was asked how to treat and manage a case of aneurysm of the lower part of the axillary artery. He said it was best to amputate the arm in the shoulder articulation. He quoted his authorities and made the demonstration mentioned. On the announcement of the results of the examinations, it was found that Laënnec divided the first prize in medicine with his friend Billery (in spite of the alphabetical order of the names, Laënnec was put first) and had taken the first prize in surgery. The prizes totalled 600 francs, but notwithstanding this prospective wealth, he had to beg money from his father to appear decently clothed for the presentations. Here, as with so many others of his calling, he demonstrated his ability at an early age, now leading his classes, as later he led his profession. The ceremony of the distribution of prizes was opened by Arnault, popularly known as the French Juvenal. The élite of France crowded the hall to hear the brilliant speech, and it was a great triumph for the young Breton, for he was only twenty-two, to be called first for the

prize in medicine, and again first for the prize in surgery, in the face of this august assemblage. He described to his father the awards; in medicine, the Commentaries of Hippocrates, Baillou, Sydenham, and other books, all bound in red morocco and accompanied by medals; in surgery, five volumes of the Memoirs of the Academy of Surgery, and surgical instruments in a handsome leather case. The latter he reserved for emergency, as he did not expect to be a surgeon. The same letter includes one of the usual ineffectual requests for money that he may take a little holiday, and the classical quotations testify that he was keeping at his Latin and Greek.

Some tribute to the fear he aroused in any competitive event is made in the incident of the examinations at L'École Pratique. When it was known that he was a contestant, only one other student would enter his name, and Laënnec was asked to withdraw. Since his residence in Paris, he had suffered with what he termed asthma, to combat which he turned to

bizarre remedies. One day, in an effort to continue at his studies, he sat at his desk with his body naked. Benjamin Franklin also knew the value of air baths and we learn in his biography that in London he would study in the mornings with his body quite nude. The examinations were followed by a period of nervous reactions and to help this neurasthenia he remained for several days absolutely idle, dreaming of the country which he was unable to visit.

In the spring of 1803, Dupuytren opened a course in pathological anatomy, the first given since Bichat's, and modelled on the latter's ideas. Laënnec no longer held those ideas, and had adopted another classification: (1) alteration of texture: wound, fracture; (2) lesions due to a living foreign body: worm, insect; (3) alteration of nutrition: aneurysm; (4) alterations of form and position: hernia. This classification followed in some measure that of Morgagni. In September of 1803, Dupuytren announced the publication of his treatise but no mention was made of Laënnec's name. The latter promptly decided to write another

treatise himself on pathological anatomy, and to open a course of lectures. He probably believed, as had his illustrious predecessor Bordeu, who proved that glandular secretions were incorrectly named, being an elaboration of elements, in that motto of Seneca: "Doceo ut discam" (I teach that I may learn). He had the assistance of friends in his lectures, and one of them reported to Guillaume Laënnec that his nephew had expounded in masterly fashion for two hours, manifesting unusual ease and eloquence. These lectures Laënnec continued for several years, starting in November and concluding in March. The delighted uncle predicted that Théophile would be a professor of medicine in Paris within three years, and his father made the rather envious remark that Guillaume was a more ecstatic poet than himself or his son when young Théophile was the subject of his rhapsody. "It is Pygmalion in ecstasy before the work of his hands."

In the circumstances, the friendship between Dupuytren and his young rival

naturally cooled, but there was as yet no animosity. In December, 1803, the former founded an anatomical society and included the latter in its membership. He was now writing regularly for the *Journal de Médecine*, reviewing works on meningitis, reporting on heart disease and pneumonia, analyzing Bichat's ideas on pathological anatomy, and writing original articles on fasting and bone diseases. Laënnec's writings all show the imprint of genius, for it is said that Osler, almost a hundred years later, being asked for a good description of pneumonia, told a student to read Laënnec. He turned to his first love in reviewing a book on natural history. An original contribution on worms found in the human body, and on hydatids, though not always accurate in description, named all the types; the acephalocysts were first described by him.

All this work went forward despite his financial distractions. The persistent uncle was now importuning the negligent father to send Théophile money to allow him to finish his courses, money for parchment on

which to write his thesis, money for clothing, especially for linen. The uncle elaborately explained that Théophile used a great deal of linen, due to ill-health, and a propensity to acrimonious sweating.[2] The fond parent forwarded 300 francs, and announced that he did not want to be asked for any more, ending his letter with the enigmatic injunction, thrice repeated, "Be a physician." At the same time that he refused to help his sons, he was anxious that the sons help him; he wanted to manipulate their successes to the end that he himself might obtain lucrative employment in Paris, and his machinations were constantly placing Théophile in ridiculous positions before his influential friends. In March of that year, robbers got into Théophile's room, and stole twelve shirts, half his flute and all of his money, thereby rendering his sartorial and financial position still more precarious. He completed his doctorate examinations in

[2] The writer at one time saw a nightgown rotted away under both arms as the result of a night-sweat in a tuberculous girl.

April. A work had appeared, perhaps influenced by Wolfe's "Prolegomena," which threw doubt on the existence of a personal Hippocrates, and held that the name was a generic term like Hercules or Pharaoh. This led Laënnec to select Hippocrates and his doctrines for the subject matter of his thesis. Since he had gained some mastery of Greek the quotation of Hippocrates had been a constant delight and resource. On the front page of his famous treatise appears that saying: "To be able to explore is in my opinion a chief part of an art." He also, no doubt, was familar with and approved Hippocrates' statement that "The search for truth is difficult and laborious; how urgent it is for physicians to know how others have striven for it, if they are wisely to prosecute their own search."

The father, whose negligence and indifference had done so much to prevent this consummation, now that it was reached, was fertile of suggestion as how best to improve this opportunity. He immediately suggested that the thesis be dedicated to some influ-

ential minister and to the whole Laënnec family. With a fine sense of the appropriate, the young graduate dedicated it to his uncle Guillaume, whose care and interest had made it all possible, and who had had to pay the graduation fee at the last moment. The title of the thesis is "Propositions on the Doctrine of Hippocrates in Regard to the Practice of Medicine." The doctrine of Hippocrates, he says, amounts in practice to seeing in disease chiefly the prognosis which can be deduced from symptoms common to all diseases, and in slurring diagnosis, which can only be deduced from the study of symptoms peculiar to each disease. He pointed out that the writings of Hippocrates on disease are somewhat inexact and confused, but appear to be based on pathological anatomy. He shared Hippocrates' views with regard to fevers. His thesis on Hippocrates was the precursor of a revolution in the classification of fevers. At that time the so-called *fièvres essentielles* were divided into six orders: *angiothénique* (inflammatory), *méningogastrique* (bilious), *adéno-*

méningée (mucous), *adynamique* (putrid), *ataxique* (malignant) and *adéno-nerveuse* (pest), numerously subdivided. This classification was espoused by Pinel and Broussais, whereas Laënnec proposed a return to the classification of Hippocrates, intermittent and continued fevers. Théophile defined what symptomatic medication should be, and concluded that if the method of Hippocrates, careful and constant observation of the sick being its basis, were followed, one ought not to keep to the letter of his doctrine, and limit one's self to prognosis at the expense of diagnosis. He also pointed out the great superiority of the moderns to the ancients in the classification of disease. His credo at the end reads (translated from the Latin in which the thesis is written): "I profess free medicine, I am not with the ancient nor with the modern, but seek the truth in each, and test everything by repeated trial." When tidings of the successful thesis reached Guillaume, he was, to use Rouxeau's expression, "delirious with joy and pride." Such had been his own

teachings, it was a triumph for the ancient doctrines, and Guillaume was especially glad that he had encouraged Théophile to study Greek, so that he had gained knowledge of the ancients at first-hand, instead of through the media of translations. The father, noting the success of the son, was seized with a noble desire to emulate it, and to the consternation of Laënnec he prepared two sycophantic addresses, one to Napoleon, one to a minister whose name we do not now know, hoping, in vain as it proved, that their presentation might result in his rapid elevation to political power. The only result was that he embarrassed his sons. Laënnec was now elected, with Bayle, to the Society of the Medical School, which had originated as the Royal Society of Medicine. Pope Pius VII was then in Paris, come thither at the command of Napoleon for the latter's coronation, and when with Bayle and other doctors, Laënnec was presented to His Holiness, it was said that the Pope, as he put his hand on one of the heads, remarked in jest: "Pius Medicus! Res miranda!"

At the end of the same year the differences between Dupuytren and Laënnec blazed out in an open quarrel. One was tactless, the other vain. Since they were both at the same task, war was inevitable. In an address before the Society of the Medical School, in which he read the first chapter of his proposed book on pathological anatomy, Laënnec credited Bichat with work that Dupuytren had assumed as his own, and charged that Dupuytren had also overlooked some of his (Laënnec's) work. This blunt statement drew a printed reply in which Dupuytren, "the greatest of surgeons but the least of men," furiously attacked Laënnec as an ingrate who had learned the little he knew at his feet, and had omitted to learn the lesson of scientific probity. Laënnec answered with dry courtesy and scientific precision in a subsequent issue of the *Journal*, and upheld his own work, pointing out that it had been published before that of Dupuytren. The latter returned to the fray with greater insolence and brutality than before. But

his only revelation was of his own egregious vanity and his desire to crush any who opposed him, for he had not the least proof to bring against Laënnec. At this point the editors of the *Journal* refused to carry on the controversy. Dupuytren, his *amour-propre* badly damaged, pettishly gave up the publication of his treatise and the delivery of his lectures, but Laënnec went on with both. He continued his studies of intestinal worms, and reported with sketches a case of dilatation of the mitral valve. As yet he had no practice, hence no income except from his father, and Guillaume was again writing on his behalf pleading for money to support Théophile, who, he says, "is working like the devil." Laënnec's linguistic interests took a new turn about this time; he developed a passion for the Celtic dialect of his birthplace. He found a resemblance between Sanskrit and Celtic, the survival of the folklore of each interested him, and he found opportunity among the wounded natives of Brittany who lay in the hospitals in Paris, to study and converse in his native tongue.

In 1805 Laënnec took his first holiday since coming to Paris. He visited relatives near Soissons. Here the dry scientist relaxed, he enjoyed again the sports of his boyhood, hunting hares and partridges, enjoyed again his neglected music, made verses and composed tender proverbs. It was here and in this vulnerable mood that he first met a young widow two years his senior, Madame Argou. We cannot know what passages there were between them, we only know that she later became his housekeeper ("Honi soit qui mal y pense," said De Quincey in a similar situation) and finally his wife. The playful and irrepressible Laënnec whom we see at Soissons was quite other than the crabbed precisian who was known to the clinics of Paris. He wrote a play in prose and verse for six actors; with little warning he wrote a skit for the amusement of a dinner party on an anniversary occasion. Asked to sing, it would have startled the religionists and scientists who knew him, to hear him reply that he knew only drinking-songs. The hostess agreed that such were

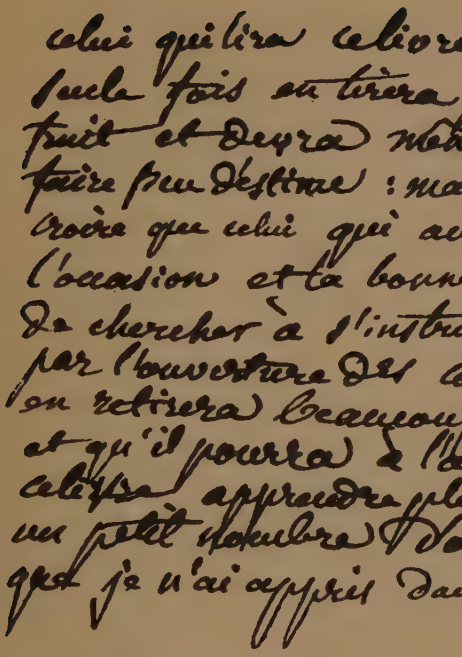
eminently suitable for that dinner, and Laënnec after a pinch of tobacco sang lusty tribute to the plants of Tobago and the inventor of the bottle. Wine and the weed, he sang, were created to obliviate the griefs of life; water, he says with Hippocrates, is the root of all evil. After four years of the restrictions of student life, he apparently let himself go. One evening a distinguished ecclesiastic was present, and he expressed the desire that Laënnec would compose a song to go with some superb music that had hitherto only an absurd libretto. It was to be in the nature of a patriotic hymn. In a few days the versatile visitor produced an ode in imitation of a psalm, the last verse of which was prophetic of universal brotherhood. The verses were entitled "Dixit Insipiens in Corde Suo." The last few lines read when translated:

Great God attend Thy Church's plea,
May in our time Thy will be done,
Let hostile peoples fraternize
And at Thine altar be made one!

V

PRACTICE AND FURTHER WORK

LAËNNEC returned to Paris at the end of September, his asthmatic distress much relieved by his holiday, and though he plunged into his work with redoubled zest, he was only able to earn 150 francs in the first year of practice. He abandoned his student quarters and moved to better chambers near the Medical School to try to augment practice. Poverty is shown by a renewed request to his father to advance him funds; he lacked shirts, and a watch. A note of sentiment appears when Théophile asks for a picture of his mother and a lock of her hair. Incessant industry is attested by numerous communications to the *Journal de Médecine*, including a review of an historical essay on the medicine of the Arabs, and by a presen-



Facsimile Reproduction from Laënnec's Treatise of Pathological Anatomy. He Emphasizes the Importance of His Work for Those Who Investigate by Autopsy.

tation before the Society of the School of notes on taenia and melanotic tumors.

A literary review by Laënnec has been recently discovered by Mettling in *Le Journal de Médicine* of 1807. The review embraces poetical works on medical subjects, and with the extensive bibliography attached, reveals unusual scholarship. From Lucretius to the period of writing Laënnec discusses the medical poetry of many nations, and quotes from Jérôme Amalthée, the Italian, who wrote "Medicina metrica" in 1561, that one cannot be a good physician without being a poet. We have already noted that Laënnec, like Jenner and many famous physicians, possessed poetical gifts.

Laënnec was now twenty-five years old.

He had made his mark as a teacher; he was a member of the first medical society of France. As an anatomist he had discovered the deltoid bursa, and the fibrous capsule of the liver. He was an excellent surgical operator, he was a remarkable clinician, he was famous for his observations and his aphorisms. He had discovered and described peritonitis and acephalo-

cysts. He was the first to describe accurately melanotic tumors. He was the editor of a medical journal, and had written a work on pathological anatomy (which he had just now decided not to publish for the present). [Rouxeau.]

Théophile had made a remarkable start on a career that was to be still more remarkable.

In 1802, following Bayle, Laënnec, through his anatomical researches, began to direct the medical world to distinguish the tubercle. Little had been published on tuberculosis except the work in 1740 of William Stark in England. Stark had anticipated much of Laënnec's work, but was perhaps unknown to the latter. It is possible that the words "Strak a assez bien décrit," found in the manuscript of a lecture on "Les Tubercles" in 1803, may refer to Stark. Tubercles had been only vaguely noted up to that time, and only accurately in the lung. Celsus (A.D. 50) employed the word tubercle, and Morton in 1689 first described tubercles in the lungs. From 1803 to 1805, both Bayle and Laënnec pointed

out the varieties of tubercles, and also the possibility of cure. Both noted the presence of tubercles in different organs. Laënnec, as a result of over two hundred autopsies, described tubercles in the peritoneum, liver, epididymis, pleura, suprarenals, kidneys and uterus. He also pointed out the frequent occurrence of tubercles in the lymph nodes. Bayle, with nine hundred autopsies to his credit, called attention to the presence of tubercles in the intestines, heart, spleen, prostate, brain, muscles, thyroid and stomach; Bayle also first employed the term "occult tuberculosis." By 1803 Laënnec was able to say that tubercles had been noted in every tissue except that of bone. Soon after, he discovered tubercles in a skull, in vertebrae and in ribs. It was in examining a tuberculous vertebra that he accidently inoculated his own finger with the tubercle bacillus.

In March, 1804, Laënnec delivered the famous lecture in which were set forth the ideas on tuberculosis that have served to immortalize his own name and that of Bayle. He held that phthisis, which had hitherto

been confounded with some twenty other diseases, was simply tuberculosis of the lungs. From this time the term pulmonary tuberculosis replaced phthisis. He admitted the contagiousness of tuberculosis in warm countries, and recognized that the disease was directly inoculable. He agreed with Bayle in the recognition of the possibility of latent tubercles in the lungs and in the cure of tuberculosis of the lungs and lymph nodes. He disagreed with Bayle's contention that the disease only hampered the efficiency of an organ; his own idea was that a special toxic malignancy was the cause of tuberculosis and produced its symptoms. With one exception, all his contributions to our knowledge of tuberculosis were implicit in this lecture. Later in life he was to add a single item of the mode of healing of cavities. It is to be remarked that he wrote the best account extant on sputa. Bayle had described the miliary tubercle as the starting-point of tuberculosis; with him phthisis was a specific general disease; hemorrhage was the result, not the cause, of pulmonary tuber-

culosis. Four hundred and thirty-two pages of the unpublished manuscripts on pathological anatomy have been found scattered over France; it is a matter of regret that the pages Laënnec wrote on tuberculosis are still missing. In the first lecture that he delivered, he touched on the history of medicine, stressed the value of autopsies, and expounded carefully the proper method of making them. One should begin at the head, then open the chest and lastly the abdomen. He described how the findings should be reported and the specimens saved. It was the eve of the decisive battle of Austerlitz; Napoleon called five classes of conscripts, Laënnec was providentially overlooked and escaped that carnage.

His cousin Christopher wrote home that Laënnec thoroughly deserved his high reputation, his heart was as warm as his talents were great; Halle predicted that Laënnec would be the first physician of Europe before he was forty.

A word should be said of his health at this time. Rouxeau in his second study

concluded that Laënnec's mother was not tuberculous; Laënnec himself was of that opinion. The error originated with Lallour, who had made the statement on insufficient evidence. Others had repeated it without verification. Rouxeau describes Laënnec as being well built and of good physique, and is doubtful if he really was a delicate child. His extraordinary endurance was well known, and was the more remarkable in one who lived as he did, spending long hours indoors and careless of obtaining adequate nourishment. In 1803, he complained of being easily fatigued, he often could not hide his irritability. His feelings may be judged from the note he then wrote: "Health is a treasure recognized only after it has eluded us." On December 7, 1803, he injured his finger at an autopsy on a case of Pott's disease, accidentally cutting it with a saw, but the tubercle which developed eventually healed completely. It is said that he frequently pricked his fingers at autopsies, and in 1819, he thus received a slight infection following an

autopsy on a case of empyema. Following a hemorrhage, the younger brother Michaud died of tuberculosis.

From 1805 to 1808, Laënnec was one of the editors of the *Journal de Médecine*, for which service he received a meager stipend. Reviews and notes indicate that he read everything connected with this work. Though open to new ideas, Laënnec could not endorse, and hence opposed, the nebulous theories of Brown and Broussais. He was a protagonist of vaccination, and when his sister was seized with smallpox, he scolded his father for having neglected this precaution. Laënnec endorsed and practiced the method of percussion which had been introduced by Auenbrugger and brought into common usage by Corvisart, who was physician to Napoleon. This recalls the story of the physician and the Emperor. It has been related that Napoleon, when a victim of bronchitis, summoned Corvisart, hearing he was an up-to-date physician who employed the new art of percussion. The two became excellent friends

and Corvisart had the courage to warn the Emperor that having climbed to such heights he must anticipate a proportionate fall. Napoleon is said to have replied: "Corvisart you are only a peasant." One vagary which Laënnec delighted to ridicule was that of Gall. By the dissection of many brains, and by the examination of the skulls of over two hundred people whose mental *differentiae* he knew, he was able entirely to demolish the pseudo-science of phrenology, while his zeal for the study of the history of medicine enabled him to show that the movement was reactionary, going back to similar ideas held by the Arab physicians. The logic and balance of his medical reviews indicate an unusual mind. Laënnec did not despise rhetoric, always noting with appreciation the vocabulary and style of contributions. He himself wrote simply, clearly and truthfully, never indulging in personalities. He closed his editorial career by reviewing Corvisart's work on Auenbrugger. That year, 1808, he also contributed to a Dictionary of Medical Sciences.

A consultation on an eminent Italian, the victim of angina pectoris, is still extant. Made in 1810, it consists of thirty pages of Latin, containing a careful history of the case, an analysis of the symptoms, his own ideas on the disease, the method of treatment and his desire to be of every assistance. I have recently seen in the remarkable Laënnec library of Dr. Henry Barton Jacobs of Baltimore an original consultation of Laënnec, on a case of stricture of the esophagus. Angina pectoris especially interested Laënnec, having himself suffered an attack. His lengthy writings on the subject advocate dry rubs for treatment. Only fragments of these writings remain, and in these are to be found analyses of the ideas of Heberden, Pinel and Jenner. The last believed the disease to be due to a lesion of the coronary artery. We remember that he was the first to recognize the beginning of angina pectoris in his friend Hunter, the anatomist. But Laënnec demonstrated that lesions of the coronary artery are rarely found in autopsies of patients dying of that disease, and he was

Laennec

℞. cortic. peruv. crassè trit. —— ℥jv
bulliat in
aq. commun. —— ℥viij
usque dum reducantur ad ℥v; addv
Pour deindè colatura,
Syrup. de florib. arantior. —— ℥ij
~~Diapnim. cum D. Haffm. —— ℥ij viij.~~

19 = 8 bris 1811.

m. f. pot.
Laennec fils

une cuillerée toutes les deux heures.

M. Barbet rue St Andri n° 51

A PRESCRIPTION WITH LAËNNEC'S SIGNATURE, FIRST PUBLISHED BY THE COMMITTEE OF THE LAËNNEC CENTENARY, 1926.

inclined to attribute the malady to a cardiac neuralgia.

The father thought that by this time his son's eminence in the medical world ought to be recognized by a court appointment. Laënnec was not anxious for such distinction, feeling it would militate against his work. The only position which he would have considered was that of first physician to the Emperor or his consort, a position which could later have been had for the asking. His desire was to fill a chair at the Medical School entitled "The Doctrine of Hippocrates and of Rare Cases." The chair, however, was abandoned and the ambition frustrated. For five or six years Laënnec was attached to a dispensary, all the while working with his accustomed energy. In 1814 occurred the first downfall of Napoleon, and the nation that had for ten years dominated Europe was overrun by the Allies. Typhus accompanied defeat and ravaged the land. Of a hospital personnel of 746 physicians, students and pharmacists, a large number developed typhoid fever,

and of that number 214 succumbed. A fine devotion to the province of this youth is attested by the special care he took of the Finisterre and Breton casualties of the war. He gathered them all in one hospital, collected native physicians who, like himself, knew the dialect, to minister to them, so that the wounded heard from their companions and their attendants the beloved accents of their own tongue. The Bishop of Quimper wrote a touching tribute to his work, and Laënnec's reply reveals something of the crowding of the hospitals and the deplorable lack of food, drugs and linen.

Could one have seen this Breton doctor moving among the patients, he would probably not have been greatly impressed by the physical appearance of the man. Laënnec was of small stature, only five feet three inches tall, and built in proportion. In fact if there were any disproportion it was that the physician was too high for his frame, for an eye-witness tells us he was thin as a shadow. Such an appearance would have been a distinct handicap to a lesser spirit.

The complexion was blemished, the eyes were sunken, the weasel-face was emaciated. But the manner was surprisingly energetic for so poor a physique, and though Laënnec's demeanor was simple and modest, he radiated a consciousness of power that inspired in his patients the utmost confidence. Though, as we have seen, he was a man of considerable enthusiasm and, at times, gaiety, he outwardly manifested a cold, meditative, even preoccupied countenance that did not invite intimacy. In the pursuit of the practice of medicine he was completely self-sacrificing; devoting himself to his patients, he surrounded them with countless attentions, and the fee was always a last thought. It is said that he stayed with one suffering patient forty nights, and was up and down each night.

Laënnec was always more anxious to give relief than to make a diagnosis, and his success attests his efficiency. In time he gathered a distinguished clientele. Alexandre Dubois paid a medical fee by painting a portrait of his physician. Madame Cha-

teaubriand persuaded her husband to consult Laënnec, whom she called her little "Secco." It was feared that Chateaubriand had an aneurysm, but after Laënnec had made a careful examination he pronounced that there was no disease. The fearful patient, not altogether satisfied, asked if he might apply leeches, and Laënnec dryly told him to do so if he gained any amusement thereby. In the year 1811, the young physician was earning 8000 francs in practice. He kept morning hours for the patients who came to his house, in the afternoons he hired a cabriolet and drove to the four quarters of Paris.

As soon as he was able, the son commenced to send his father money, first 600 francs, later 1200 francs. The latter was in financial difficulties, legal squabbles were precipitated in the family, but happily Michaud, before his death in 1810, forgave the father. The grandfather's estate at Kerlouarnec had descended to Théophile senior, and he almost lost it through mismanagement, but the son by dint of con-

siderable financial sacrifice managed to liquidate the debt and keep the property in the possession of the family. The estate was small, consisting of two farms and a chapel, Sainte Croix. Laënnec now naturally became interested in farming and country life; music was superseded by agriculture, landscape gardening was studied in a small way, and like others whose lives have been mostly urban he at last came to the conclusion that farming was man's true vocation. Possibly his health drove him to that position. He was relatively free from asthma, but was troubled by insomnia and digestive disturbances, and believed himself a hypochondriac. In 1808 he had an attack of cholera morbus.

By the year 1814 Théophile was badly in need of a vacation, and went to Kerlouarnec in the certainty that the country life would recreate. An attack of gout had once cleared up when he got in the country at Soissons with a gun over his shoulder. For one of such a frail appearance he was able to walk long distances, but exercise was impossible in

Paris. Théophile had three happy months on his estate, busying himself with the cares of a landlord, and perfecting his dialect so that he was able to write the tenants in Celtic about fertilizers and ditches and the rotation of crops.

But a year later the asthma returned and was followed by a second attack of angina pectoris. Laënnec wrote an account of his experience in Latin, giving an exact description of the pain in the left chest and arm, and of a digestive disturbance which accompanied it. He noted that his heart continued to beat quietly. After two hours relief came and there were no after effects. Still later Laënnec suffered constant tenacious headaches with paroxysms, the sensations were as though his head was in a vice. He also complained frequently of attacks of dizziness.

Phthisis had robbed him of his brilliant brother in 1810; in 1816 the same disease removed his close friend, Bayle. Each physician had early manifested interest in natural history, Bayle as a lad had given names to

some species of insects. He naturally inclined to the study of medicine, and after a two-year course which made him an Officier de Santé, Bayle came to Paris in 1798, and studied under Corvisart. He inspired Laënnec to realize the value of autopsies each, as we have noted, performing a vast number. Bayle became a Doctor of Medicine in 1802, and his thesis on a new form of gangrene created a sensation. He aptly defended himself when his statements were challenged and was as eager to disown false theories as to get at the true. Replying to a question as to whether some kinds of humors gave rise to a variety of white inflammation, Bayle said: "Of what use are all these hypothetical deductions, why resort to a pure operation of the imagination in explaining a natural phenomenon? Is it not better to simply say 'I do not know,' than to erect a pompous edifice on the foundation of moving sand?" In 1804 he developed insomnia and oppression in the chest, and in 1816 died of tuberculosis, at the age of forty-two.

The promotion of Dupont and the deaths of Mongenot and Bayle created hospital vacancies, and Laënnec was offered the appointment at the Necker, which at that time was rather despised. He accepted, partly because the hospital had a fine garden that offered the means of exercise. There he took up his work, starting with a service of twenty beds.

VI

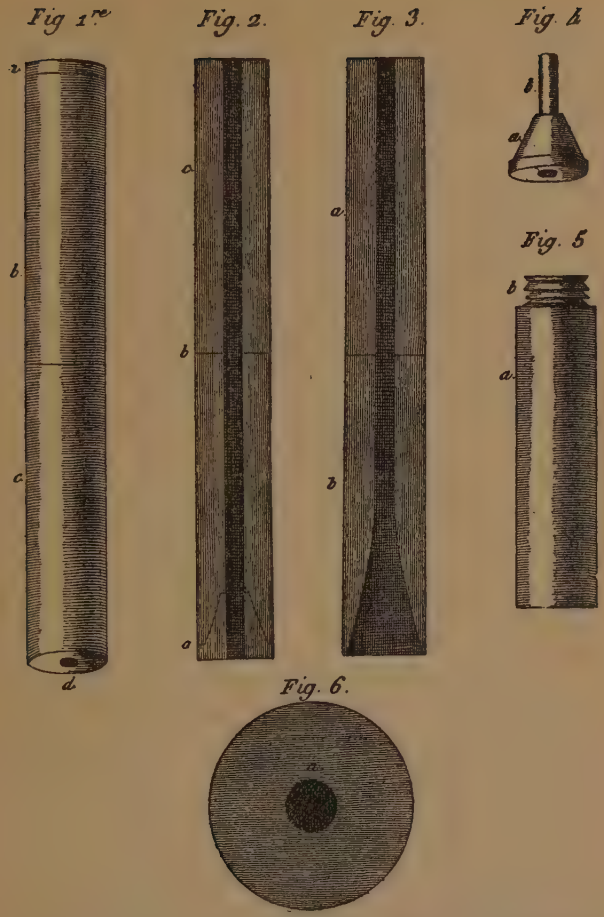
THE STETHOSCOPE

BEFORE Laënnec's time, chest diseases had never been carefully studied, although palpation and percussion had been introduced. Hippocrates had studied pleural fluctuation and had even attempted to interpret noises heard in the chest. Bayle had made a similar attempt to study the heart sounds. Double had also listened to the heart and lungs. In the seventeenth century Robert Hooke, in England, had listened to the heart and had described wheezing in the lungs. The custom had been to apply the ear directly to the heart or chest, and Laënnec objected to this procedure because of modesty and the lousiness of many patients. Blood would rush to his head and cause a confusion of sounds. The obesity of a girl

patient at the Necker Hospital, suffering with a heart condition, made immediate auscultation useless, for only faint and distant heart sounds could be noted. In walking through the Gardens of the Louvre about this time Laënnec came upon a pile of litter which had collected as a result of the political chaos and the attendant neglect. Here a joyous crowd of urchins played. Their amusement was to divide into two groups, one at each end of a wooden beam, and while one group scratched and tapped at one end, the second group, their ears pressed to the other end, listened in childish amazement to the sounds. Laënnec looked and understood. He set out for the Necker at a fast gait. Reaching the room of his adipose patient, he seized a paper-covered book, rolled it into a tight cylinder, and to the amazement of the onlookers, he placed one end of this crude instrument against the patient's heart while he applied his ear to the other end. He could hear the heart sounds and also the respiratory murmur. Emotions usually carefully suppressed were stirred,

for the possibilities of the discovery were instantly seen. To improve the instrument Laënnec wished to eliminate the central canal. Fortunately this was not immediately possible, otherwise he might not have discovered the phenomenon of pectoriloquy.

Notes on the records of the Necker Hospital now appeared indicating the use and results of the *cornet de papier*. At this time Beaugendre was his faithful assistant. It was he who later reported an autopsy on a woman pregnant fifty years before, finding in the uterus a completely petrified fetus. As patients, Laënnec auscultated Madame Argou for angina pectoris, and the famous Madame de Staël, who had developed dropsy. Laënnec claimed he discovered fluid in the chest of the latter by means of his instrument. At the autopsy, however, no fluid was found, but there had been time for absorption. Toward the end of the year 1817, Double published a work in which he advocated placing the ear against the chest for examination. Later, in 1834, he claimed



Illustrations of Portions of Original Stethoscope, Figure 6 being the Actual Diameter of the Cylinder. From "De L'Auscultation Médiate," 1819.

the paternity of auscultation before the Academy of Medicine. Laënnec also published some notes on his new method in 1817, and set himself to prepare as quickly as possible the results of his researches. He had already studied empyema and had noted what he termed egophony in pleurisy. In a tuberculous patient he had detected the Hippocratic sign of hydrothorax and named it succusion or commotion. A new phenomenon, pectoriloquy, was noted in another tuberculous patient at the Necker Hospital. Her bedside was besieged for demonstrations, but the cavity disappeared and the patient lost her fame.

Laënnec wearied of rolling up paper cylinders and tying them with strings, so he learned to turn on a lathe, and then made solid batons each about a foot long. He could hear the heart sounds better with these, but he could not hear pectoriloquy, which with the solid cylinder sounded only as a vague bronchophony. By experimentation he found that a central canal in his baton overcame this difficulty. Therefore

two cylinders were necessary for an examination. Heavy woods, like ebony, and the lighter woods, like cedar and cane, were fashioned. He even devised cylinders made of goldbeaters skin inflated with air. In the end Laënnec found that a light wood, preferably beech or linden, was most satisfactory. The acoustic arsenal, as Rouxeau puts it, consisted of three batons, the last of which had the central canal enlarged at the chest end. This enabled him to hear the respiratory murmur, and the "râle." This new name he created and introduced. Laënnec gave to his method the name *auscultation*, from *auscultare*, a word coined by Foës to distinguish the Hippocratic method of examination; he prefixed the adjective *médiate* to indicate the use of the stethoscope.

His was the usual lot of the creative genius. From the competent Laënnec met with indifference, from the incompetent with ridicule. In February, 1818, he presented before the Academy of Sciences a paper entitled, "A Memoir of Auscultation," which

later became the first part of his memorable treatise. Dr. Cowan says that "this epoch-making memoir was listened to with respect, but without the slightest trace of enthusiasm." From the lesser spirits of his profession he could not expect enthusiasm nor escape ridicule. A charming picture of Laënnec and an indication of the general attitude toward his discovery is found in Kipling's story of the "Marlake Witches." Oliver Wendell Holmes in his "Stethoscope Song" wrote amusingly of the "listening tube" for "sounding the chest":

There was a young man in Boston town,
He bought him a Stethoscope nice and new,
All mounted and finished and polished down,
With an ivory cap and a stopper too.

It happened a spider within did crawl,
And spin him a web of ample size,
Wherein there chanced one day to fall
A couple of very imprudent flies. . . .

The doctors being very sore,
A Stethoscope they did devise
That had a rammer to clear the bore,
With a knob at the end to kill the flies.

Now use your ears, all you who can,
But don't forget to mind your eyes,
Or you may be cheated, like this young man,
By a couple of silly, abnormal flies.

The publication of Laënnec's book was delayed by his suffering an attack of gout in the knee, which terminated suddenly. Rouxeau describes what he calls polymorphous nervous affections which include headaches and vertigo. The famous patient, Madame de Chateaubriand, now developed a cough, fever and pulmonary hemorrhage, but since Laënnec could not detect pectoriloquy he doubted the presence of phthisis. Consultants diagnosed the condition as tuberculous, and gave the patient but few months to live; she recovered and lived to enhance the reputation of her physician.

In August of 1818 Théophile took another holiday in Quimper, journeying thither in his own cabriolet. He spent a few months there, bought two more farms, and after an enjoyable time in the out-of-doors and a visit to his uncle Guillaume in Nantes,

returned to Paris prepared to publish the book, which he had previously completed. Laënnec received a warm welcome at the Necker, for he was now the most considerable physician in Paris. His practice multiplied and his interests did not diminish. He auscultated animals and endeavored to make his instrument of use to the deaf. He vastly improved it by the conception of a cylinder which was funnel-shaped at the chest end and divided into two pieces for convenience in carrying. He also helped a friend with the plates which were to be published in his book. With his lathe he himself made many batons of walnut which were sold with copies of his treatise.

The instrument went under many names. He called it a cylinder himself, others called it a baton, a solometer, a pectoriloquy, or a *cornet médicale.* Uncle Guillaume suggested the name thoraciscope, but Théophile was too much of a purist to accept a name that combined Latin and Greek, so he changed the name to stethoscope. I was recently present at a meeting of phy-

sicians where no one knew either the origin or the meaning of the word. Though he coined this name Laënnec never employed it, preferring to style his invention a baton or cylinder.

VII

"DE L'AUSCULTATION MÉDIATE"

IN August, 1819, appeared his monumental work. It is entitled "De l'Auscultation Médiate, ou Traité du Diagnostic des Maladies des Poumons et du Coeur, fondé principalement sur ce nouveau moyen d'Exploration." Thirty-five hundred copies made up the first two editions. It was issued in two volumes, selling for thirteen francs; the stethoscope sold for three francs. I have studied this work and much of it has been translated in the excellent little book on Laënnec by Hale-White.

The chapter on investigation of the voice tells of the discovery of the sign of pectoriloquy. Laënnec writes:

The subject who presented it was a young woman about twenty-eight years of age, laboring under a slight bilious fever, and with a recent cough which had simply the characters

Fig. 3.

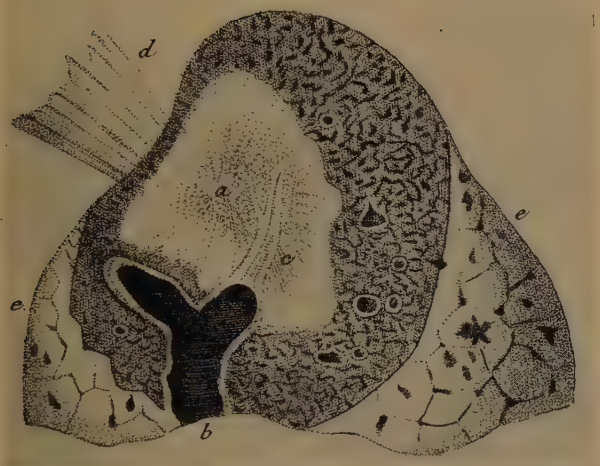
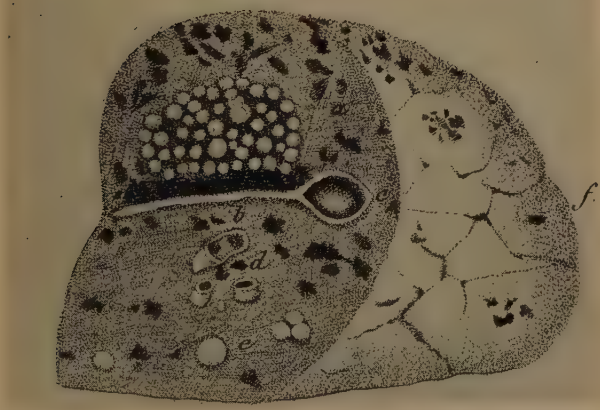


Fig. 4.



TWO ILLUSTRATIONS FROM "DE L'AUSCULTATION MEDIATE," 1819. FIGURE 3 SHOWS FIBROUS CARTILAGINOUS SCAR IN HEALTHY CARBON-LADEN LUNG; WITH BRONCHIECTASIS. FIGURE 4, A GROUP OF GREY TUBERCLES, YELLOW AND OPAQUE AT CENTER. INCOMPLETE CICATRIZATION OF A TUBERCULOUS CAVITY.

of that of pulmonary catarrh. While holding the stethoscope applied below the middle of the right clavicle I made the patient speak. Her voice seemed to issue directly from the chest and pass unaltered through the central canal of the instrument. This phenomenon occurred over an area not larger than a square inch. In no other part of the chest could I find anything like it. Not knowing to what to attribute it I examined most of the patients in the hospital with reference to this point and found the same sign in twenty of them. Almost all of them were sufferers from phthisis who had reached an advanced stage of the disease. From that time I began to suspect that the phenomenon might be due to anfractuous (full of windings and turnings) cavities produced by the softening of tubercles and known under the name of ulcers of the lungs. The most of the patients who showed this sign having later died in the hospital, I was able to verify by autopsy that I had reasoned correctly.

It is interesting to read Laënnec's statement that tuberculous patients formed one third of the whole number then treated in

the hospitals of Paris. The pathological studies reported on tuberculosis are most complete, and it is noted that in sufferers from phthisis rarely the lungs alone contain tubercles; almost invariably they are also present in the walls of the intestines where they provoke ulcers which are the cause of the profuse diarrhea.

The studies of the breath sounds and râles are substantially the same as we know them today. Laënnec attributed bronchiectasis to the effects of any malady which would cause coughing in a prolonged and violent way over a considerable period of time, especially a disease like whooping-cough. He claimed that patients with bronchiectasis might live to a great age. The chapter on pneumonia is, as we have related, still a classic for medical students. Percussion is discussed and the errors it might lead to through ignorance of the normal chest are indicated. Even the different tones resulting in rachitic subjects are dealt with. In the chapter on pleurisy there is no reference,

in any edition, to the pleuritic rub.* Laënnec noticed that the respiratory sounds were fainter as a result of pleurisy, but stated that no râles were present unless at the same time there happened to be pulmonary catarrh, which was unusual. He indicated the resultant shrinkage of the chest from pleurisy, and wrote excellent pathological studies on that disease. He described with accuracy emphysema, metallic tinkling, pulmonary apoplexy, edema, and gangrene of the lung. There is an excellent chapter on pneumothorax, and also on the examination of the râle. He divided râles into (1) moist râle, or crepitant; (2) mucous râle, or gurgling; (3) dry sonorous râle, or snoring; (4) dry sibilant, or whistling râle. The chapters on heart

* Stokes in his "Diseases of the Chest," 1837, writes of the "frottement" of Laënnec and the persistence of this in some cases of pulmonary phthisis. In the fourth edition of "Traité de L'Auscultation" 1837, ii, p. 445, there is a footnote by M. M. Laënnec in which he credits M. Reynaud with describing, in dry pleurisy, "le bruit de frottement ascendant et descendant."

disease are not so illuminating, owing to the fact that the physiological explanation of the heart sounds was then unknown. "Starting with the false hypothesis that the second sound was auricular in origin, he never found his way out of the jungle" (Thayer).

On January 24, 1819, Laënnec infected his finger while performing an autopsy on a case of empyema. Fortunately the infection did not become serious. In July of that year he suffered an attack of gout, the asthmatic trouble returned, and he began to suspect that he might be tuberculous. A few days in the country rid him of the attack of asthma which had lasted several months, and this experience led to retirement from practice and his return to Brittany. The uncle was very solicitous for his health, but was inclined to be sceptical of the efficacy of a marine climate. Forbes, who translated Laënnec's work into English, received at this time a communication from Théophile's cousin, Dr. Mériadec Laënnec, stating that the illness had none of the characteristics of tuberculosis, that although puerile respiration could be heard,

there was no evidence of disease in the chest, nor was there any cough. The patient's spirits were depressed, he suffered from dyspnea and had frequent fainting attacks. Laënnec himself described his condition as *taedium vitae*, or, as we should say today, a nervous breakdown. In preparation for retirement, Laënnec gave some of his books to the hospitals, sold many of the rest and disposed of all his household goods. Madame Chateaubriand wrote to one of her friends that her little "Secco" had left for Quimper without even bidding his patients adieu. It is amusing to read her resolution that in his absence she will have no other physician, but will use her own good sense and diet on asses' milk.

Meantime the treatise on auscultation was meeting with a very cool reception. The physicians who used the stethoscope were commonly considered to be mere charlatans. The now-celebrated book was then harshly criticized because of the absence of a third volume which would have discussed the matter of treatment. What

was the use, said the scoffers, of such skill in diagnosis if there were no remedy to administer? The accurate description of bronchiectasis and the belief in the curability of tuberculosis met alike only satirical ridicule. It is a fact that the author of this epochal work received from his friends of the medical world only two letters in praise of his researches. The illustrious Chateaubriand, in writing a historical review of the year, praised Laënnec, but the general attitude is more accurately revealed in Forbes' preface to the translation of the treatise. Speaking of auscultation, he wrote:

That it will ever come into general use notwithstanding its value, I am extremely doubtful; because its beneficial application requires much time and gives a good deal of trouble both to the patient and the practitioner; because its whole hue and character are foreign, and opposed to all our habits and associations. It must be confessed that there is something even ludicrous in the picture of a grave physician proudly listening through a long tube applied to the patient's thorax, as if the disease were a living being that could communicate its condition to

LAËNNEC. SKETCHED AND LITHOGRAPHED BY HIMSELF, ABOUT 1820, AT KERLOUARNEC.

the sense without. Besides, there is in this method a sort of bold claim and pretension to certainty and precision in diagnosis, which cannot at first sight but be somewhat startling to a mind deeply versed in the knowledge and uncertainties of our art, and to the calm and cautious habits of philosophizing to which the English physician is accustomed.

More intrepid spirits than the cautious Forbes did not stop here however. Kergaradec and Louis introduced the stethoscope for use at the Charité. Even Laënnec's archenemy, Broussais, did not scorn this invention of his foe. Laënnec's cousin, Mériadec, wrote his thesis on auscultation, and made other investigations under the aegis and encouragement of Théophile. Laënnec's advice to Mériadec is interesting and pertinent: "Do not fear to repeat what has already been said. Men need these things dinned into their ears many times and from all sides. The first rumor makes them prick up their ears, the second registers and the third enters." Uncle Guillaume had found the stethoscope useful, but wrote to warn Théophile that he must expect to encounter

antagonism similar to what met such men as Harvey, Sydenham and Jenner. In June, 1819, James Clark, a young Scotch physician who was visiting the hospitals of the Continent, came to the Necker. He had studied the climates of the various parts of Central Europe for the treatment of tuberculosis, and sat under Laënnec. In 1820 he published a book on observations which called attention to auscultation and its inventor. It was he who aroused the interest of Sir John Forbes, and the latter published a work on diseases of the chest and their diagnosis by acoustic instruments. Indeed the prophet was honored save in his own country. His work was well received in most of Europe, and in the New World the editor of the *New England Journal of Medicine and Surgery* planned to translate the treatise, but he was anticipated by Forbes.

After visits to Saint-Brieuc, where his father was, and to Lannion, Théophile came in October to Kerlouarnec, where he spent two years' isolation alleviated by the company of *la veuve* Argou. He set to work to

renovate the estate, which had become badly dilapidated. Avocations were riding horseback, walking in the woods with his dogs and trimming his trees. Again Théophile took up the study of Gaelic and became interested in tracing the affinities in the Celtic families, such as the Irish and Cornish. Dining with the Abbé Guezengar, he told him the origin of his name, "Tree of love." He investigated the causes of the disappearance of the sardines and the general decrease of the fishing industry in Brittany. The effect of marine climate on tuberculosis interested the scientific spirit and the report of the rarity of this disease on his own seacoast was confirmed. In the two years at Kerlouarnec Laënnec found only six victims and of these three recovered. He found time from the pursuits of a country gentleman to remodel his stethoscope; he replaced the screw with a pin, and adapted it so that either end might be placed at the ear.

A man from Quimper condemned with the diagnosis of pulmonary tuberculosis in its last stages, came to Laënnec for examina-

tion. The physician discovered an empyema and called in a surgeon to incise the chest. Two and a half pints of pus escaped. Deprived of professional income Laënnec soon found his finances in a bad way. He was compelled to reduce for a time the pension he allowed his father, and the thousand francs yearly that the government now voted him from its allowances to savants and men of letters was not sufficient. Health now much improved, Théophile was able to tramp eight hours in the snow without fatigue, but found it difficult to concentrate on reading or writing. His financial troubles were exigent, however, and return to work in Paris was necessary.

VIII

RETURN TO PARIS

LAËNNEC reached the capital on the fifteenth of November, 1821. His reception was enthusiastic. Physicians from all the countries of Europe crowded the Necker to hear the discoverer of auscultation. Patients were importunate for consultations. Without any solicitation he was appointed as physician to the Duchess of Berry. The position was no sinecure but it augmented his income by four thousand francs. The Duchess was delighted with her physician, she enjoyed his infinite variety of knowledge, and tried in every way not to allow the appointment to impede other professional work. Guillaume did not live to witness all the honors that came to the nephew for whose success he was so largely responsible. At the age of

seventy-three death came from cancer of the stomach, and though Théophile hastened to Nantes he arrived after the end. In 1822 came the appointment of Professor and Royal Lecturer at the College of France, and full membership in the Academy of Medicine. In 1824 he was made a Knight of the Legion of Honor.

Meanwhile Laënnec had resigned his position at the Necker and had taken over a clinic at the Charité. Notes, which still exist in his own hand, cover the field of general medicine. As one of a commission to study animal magnetism, he argued that it was nothing but trickery. Laënnec used the stethoscope for the study of muscle sounds, and noted the bruit produced. He first used antimony in large doses as an emetic, finding it useful in patients who could not be bled, especially those with pneumonia. He also tried several specifics for tuberculosis. Inunctions of potassium iodide and emanations of chlorine gas gave no satisfactory results. Experience on the seacoast led him to advocate fresh air, and in his own

last illness he insisted, contrary to the notions of the time, in having the windows open day and night. Thinking seaweed might help the tuberculous, with twelve patients as controls he gave infusions of seaweed, and spread this material around their beds.The experiment appeared to be successful, the mortality was reduced, and the cough and sputum of the patients seemed to diminish.

It was during seclusion in Brittany that the opening passages occurred in one of the most celebrated duels of medical history, Laënnec and Broussais* being the principals. In the face of popular opposition, practically alone, Laënnec combatted and annihilated a generalization which was the creation of

* Broussais in the preface to his first edition on "Chronic Phlegmasiae" in 1808, writes, "Medicine is enriched by facts only . . . All theory becomes useless in practice . . . Let theory be the result of facts reduced to principles . . . I have first proved that pulmonary inflammations incessantly transform themselves into one another; afterwards, on following them into the chronic state, I discovered that they all terminate in phthisis pulmonalis."

the vain and fiery Broussais. Their differences dated from student days. Broussais, who was eight years the senior of Laënnec, was finishing work under Corvisart as Laënnec was starting. They frequently met at the bedside, and on a certain occasion disagreed on a diagnosis, Laënnec insisting upon empyema, and Broussais on pneumonia. Laënnec's work as a pathologist no doubt had taught him how often empyema was overlooked. Broussais claimed that the fullness noted on one side of the chest was due to pneumonia. Laënnec argued that such fullness in cases of pneumonia might be apparent rather than real because of imperfect exhalation. Since the fullness in this patient's chest was real it could be due only to empyema. The treatise on auscultation unfortunately mentioned this incident, omitting the name of Broussais. In another place Laënnec accused Broussais of forgetting his debt to Bayle. The egotistical Broussais was terribly chagrined to read the reference to his error in diagnosis, and in the second edition of his book, "Examina-

tion of Doctrine," he vented eighty pages of wrath on the head of his critic. Broussais scoffed at every line of Laënnec's writing, and in a venomous and relentless fashion attacked him in the interest, as he says, of science and humanity. "What are these tubercles," he asks satirically, "of which Laënnec relates the phases of development, as if he had been in the body of the sick when this matter first appeared?" In another passage he writes: "To stop at the pneumonia diagnosis with the different degrees of engorgement without adding methods and indications for treatment is to fail in purpose and to encourage readers to satisfy their curiosity by autopsy rather than with the desire to prevent the autopsy." Broussais in turn accused Laënnec of plagiarism. The latter, encouraged by his uncle, prepared a reply in the hermit retreat at Kerlouarnec, but forbore to publish this when he found that some friends had undertaken his defence. After the return to Paris, he answered Broussais in his clinics, which were attended by physicians from

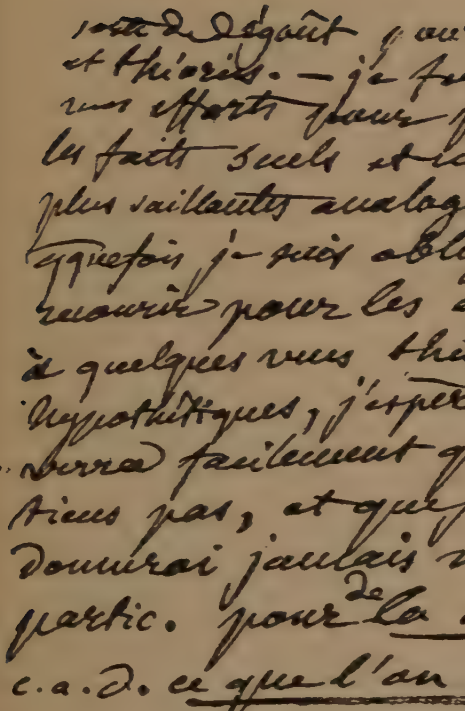
every corner of Europe. On December 2, 1822, Laënnec delivered his opening lecture as professor in the College of France. In an ingenious parable he compared his adversary to a drunken Paracelsus; though the name of Broussais was not mentioned, few missed the point of the parable. The opening sentences read:

The aim of medicine is the cure of the sick. A multitude of ways have been attempted to that end, and the number as well as the variety justifies the scepticism which medicine has often inspired, so debasing it with all the lighter minds and with the crowd incapable of discernment and of distinguishing facts from shadows with which ignorance, vanity, and often the most shameful passions have surrounded them. These ways so diverse in appearance can, however, be reduced to three categories, the empirics, the etiologists, and the observers.

Empiricism, he said, which is founded on changed circumstances, has placed in the hands of physicians such valuable remedies as opium, quinine and vaccination, but the empirical route is slow and leaves many gaps over the centuries. Laënnec ridiculed

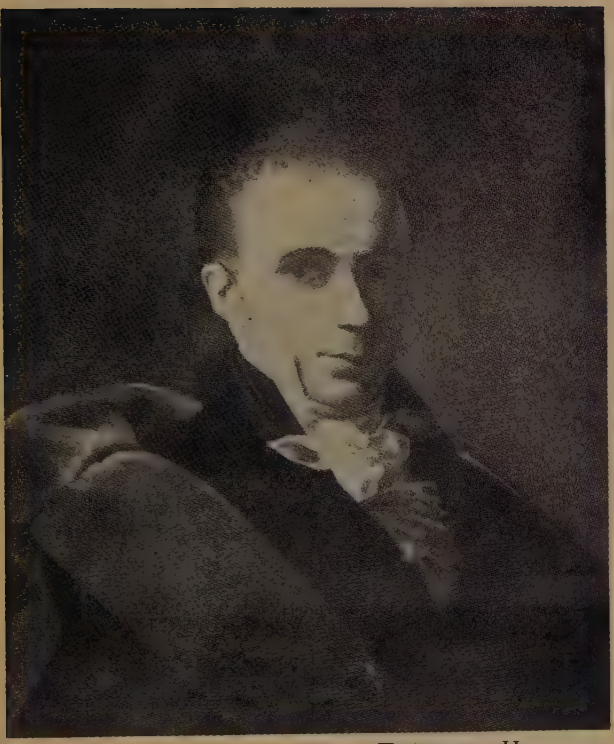
the fads of the day, and praised the methods of observation advocated by Hippocrates and Sydenham. The lecture, which reads delightfully even now, concludes with the hope that it will never happen to him to express what he thinks or what he conjectures, his point of view or his theory, for "*science is that which one knows.*"

In lectures at the Charité and the Faculty Laënnec lost no opportunity to disprove the fallacies of that strange generalization of Broussais which was called the Physiological Doctrine. This bizarre dictum ascribed all the vital processes to irritation, and all disease to excess or deficiency. Among other absurd claims of Broussais occurs the following: "Pulmonary phthisis may be prevented by putting an end by antiphlogistic remedies and revulsives, soon after its presence is discovered, to any existing irritation of the respiratory apparatus." Referring to melanotic cancers Broussais wrote: "This is all that it is important for the physician to know, and as to what M. Laënnec has written about black cancers I



From Notes of the First Lecture of Laënnec at the College of France, 1824. He Voices His Objection to Speculation and Proclaims That "Science is That Which One Knows."

may as well say that it is the product of his imagination, a gloomy romance which I found difficulty in reading from the beginning to the end." Someone stated of Broussais: "His methods of teaching were Napoleonic, his therapeutics were sanguinary." Certainly his attacks were both. The two men were antitheses: one was tall, muscular, ebullient; the other short, valetudinarian, reserved. One fought passionately for an error, the other dispassionately for the truth, the one who was wrong had the medical world with him, the one who was right stood almost alone. The conflict made many enemies for Laënnec, the medical press was a solid phalanx of opposition to him, he became personally unpopular. Laënnec had neither the desire nor the talent to appeal to the mob; his work was "caviar to the general." The discussion soon became a war, the war of principles became, on the part of Broussais, a war of personalities. With the leader stooping to contemptible jibes at the meager frame of "Little Laënnec," the crowd could not be expected to



Portion of a Portrait of René Théophile Hyacinthe Laënnec by Alexandre Dubois.

refrain. Laënnec's discoveries were jeered, he was mocked in public. His physique was ridiculed, his skill impugned, his character maligned. The ideas with regard to the contagiousness of tuberculosis were laughed at, the suggestion of a tuberculous diathesis was scoffed, the suggestion that the disease was of a specific origin was treated with contempt. Students even resented the presence of foreign physicians who crowded the lecture rooms. The provinces joined with the capital in ignoring or ridiculing the author of auscultation.

IX

ILLNESS AND DEATH

IN 1822, moved both by pity for her loneliness and by love, Laënnec invited Madame Argou to take charge of his ménage. In 1824 she accompanied him to Kerlouarnec, together with his dogs, Kiss and Moustache. There Laënnec "wearied his legs to rest his head," beyond that we know little of the vacation. By the year 1824 the malicious gossip of Kerlouarnec and Paris determined Laënnec to act. Love was possibly not the dominant factor in the situation, but rather convenience, convention and a mutual esteem. Certainly the principals could hardly be suspected of the grand passion. The widow was forty-four or forty-five, and ill-health made her appear ten years older. By marriage she joined herself to an emaciated and asthmatic physi-

cian, who if he had been neither thin nor sick would still have lacked comeliness. This pair became one at the Church of Saint-Sulpice on December 16, 1824. The poetic father, whose penetrating gaze did not stop with the somewhat ludicrous externals of this *mésalliance*, managed to celebrate the nuptials with the tenderest of hymeneal verses. Despite the distractions of this mild love, Laënnec had prepared a second edition of his treatise in 1823, which was almost a complete work on general medicine, including treatment of nose and ear diseases.

Laënnec about this time visited Bordeaux to examine a wealthy Spaniard in whom a cavity was suspected. He was offered ten thousand francs for the visit, and fifty thousand if he could effect a cure. On examining the patient Laënnec could not find pectoriloquy, but warned the attending physicians that the absence of this sign might be a result of a collection of pus in the cavity. That very night the cavity drained, and the next day pectoriloquy was easily detected. In another patient by means of

percussion a cracked-pot note was found and the cavity was therefore described as superficial.

It happened that Laënnec had need of the wealthy Spaniard's fee, for like other professional men attempting business, he lost sixteen thousand francs in a land drainage speculation, the sea having overflowed during an equinoctial storm. Litigation resulted, and under this worry and that caused by the revision of his book, the nervous organization completely broke down. In April of 1826 he contracted a severe cold, but continued at work. A throat condition followed, accompanied by high fever and pains in the chest. For a time Laënnec thought this might indicate a third tuberculous collapse, but Mériadec was unable to detect any unusual pulmonary condition. He was twice bled, and after the second bleeding, when he was in a semi-erect position in bed, Laënnec noted "a heart murmur perceptible at a distance." He immediately added this observation to the book.

Gradually he recovered so that he was able to ride about and enjoy the parks and trees of Paris. The "Treatise on Auscultation" was entered for a valuable prize which the Institute of Medicine bestowed for the best medical work of the year. The author claimed that he had given inspiration in his clinics to three hundred physicians during the year 1825, and advanced the merits of his discovery and researches. To his disappointment the prize was awarded to the inventors of sulphate of quinine.

In May Laënnec was attacked suddenly with a diarrhea. Mild attacks had formerly served a beneficial purpose, but now he was also the victim of fever and sweating. He commenced to cough, the expectoration being markedly fetid. Auscultation was now less reassuring, slight pectoriloquy was suspected below the left clavicle. Hoping that Brittany might effect a cure, as it had before, he obtained a congé from the Duchess de Berry, and made preparations. On the thirtieth of May, feeling somewhat better, Laënnec with his wife started in an

open carriage for the beloved home. The journey was long and exhausting, interrupted by accident and illness, the diarrhea improving and relapsing. The weather was not auspicious, the patient was chilled by constant wind and rain. An infected upper molar tooth was discovered and extracted; a great deal of fetid pus was discharged, probably from the antrum. It is the conjecture of Rouxeau that all symptoms, including the cough and diarrhea, were due to this infection. Along the way an old friend and pupil, Toulmouche, auscultated Laënnec and found nothing serious. On the fourth of June, while the invalid was reading a prayer-book at the line "Ora pro nobis," the carriage was thrown into an eleven-foot ditch, with coachman, passengers and horses. They were terribly shaken, but otherwise not harmed. During the journey Laënnec was taking opium to control the diarrhea. At Quimperle another pupil, Beaugendre, auscultated but could find no evidence of pulmonary disease.

KERLOUARNEC THE HOME OF THE FOXES AT PLOARE, WHERE LAËNNEC DIED.
FROM ROUXEAU.

After ten days Kerlouarnec was reached, but the invalid was so exhausted that he feared a galloping consumption, expecting to die within a week. Physicians assured him that they could hear nothing abnormal with the stethoscope, but the patient insisted that he could if he could only use the instrument. He was resigned and gentle, manifesting none of the petulance of the sick, and even dictating his own bulletins. The active fever continued, the expectoration was very profuse, and pus still was discharged from the maxillary sinus. Laënnec reported that, since he could take one and one-half liters of emollient enema in his lower bowel without distress, his large intestine must be healthy. He craved the out-of-doors and a view of the farms, so he was carried in his chair under the trees or wheeled around the farms and to the chapel of Sainte-Croix. Meanwhile the diarrhea waxed and waned, a violent chill occurred, though the sputum diminished. His diet was goats' milk and whey. Beaugendre found a hard and irregular tumor in the abdomen, and Laënnec's

cousin Ambroise came from Nantes to make an examination. This physician found bronchophonic resonance, the respiration generally vesicular, mucous and sibilant râles at the base of the left lung. He dissented from the opinion of Mériadec and Recamier who suggested pectoriloquy under the left clavicle. This cheered Laënnec; he said "he hoped for little and feared nothing." And he again rode in his carriage around the estate. A question now arose as to pectoriloquy at the angle of the left scapula. The faithful son now wrote last words to his beloved father, praying God's benediction for him, and communicating his own resignation in the face of death. "Il me semble que je désire plus de paraître devant lui (Dieu) en ce moment que dans un autre." July was a hot month; the dysentery returned and Beaugendre intimated to Mme. Laënnec that the end could not be far away. In spite of the combined heat and weakness, Théophile contrived in July to walk daily in the garden.

Seventeen days before his death a courier from Paris brought a letter saying that the request of the Duchess of Berry for an Order of Saint-Michel for Laënnec was refused. In a last note he wrote, Laënnec compared his case to that of Madame Chateaubriand. Towards the end a violent fever and delirium set in. In one of the rare intervals of lucidity, on the last day of life, Théophile withdrew the rings from his fingers, saying that he would spare some loved one that melancholy task. He then sank into a comatose state, and at 5:30 o'clock of the thirteenth of August, 1826, he expired.

There was no autopsy; the corpse, which weighed less than one hundred pounds, was buried in the parish churchyard, facing toward the large cemetery Calvary. The stricken father made a sad attempt to embody his grief and pride in an epitaph.

Victor Robinson ends a delightful chapter on the life of Laënnec with these words:

His name remained the greatest in the history of tuberculosis until that epochal evening two generations later, when Robert Koch read

his paper, "The Etiology of Tuberculosis," announcing that a short rod-shaped bacterium was the sole and only causative agent of the universal scourge. Suffering mankind now awaits him who will discover a remedy to destroy Koch's bacillus. In high expectation Koch himself proclaimed that he had found a specific; but tuberculin is a stain—the only one—on the Hanoverian's bright escutcheon. The Jenner of tuberculosis has not yet arisen; when he comes, when he brings to the medical market the blessed drug that will materially help transform consumptives into normal human beings, the historical student will share in the general rejoicing, but he will not forget how much the world owes to the previous labors of Théophile Laënnec.

It is sad to think that Laënnec did not live, as did Pasteur, to enjoy the plaudits of mankind, and to reap the reward of his labors and his discoveries. Living, his renown was unsung, but later generations have striven to repair the negligence of his contemporaries, and he who met with little but obloquy and ridicule in life has been praised with a unanimous voice by a

more discriminating posterity. Though Laënnec met with no general acclaim, he must have known that his life and work were not in vain. Certainly we as physicians can well attest his success when we recall his words: "I shall consider it ample, yea more than sufficient reward for my labor, if it should prove the means by which a single human being is snatched from an untimely death."

X

ICONOGRAPHY

THERE is only one authentic portrait of Laënnec, that by Alexandre Dubois, painted in 1812, but dated 1813, to enter the Salon. In a letter describing this portrait, Laënnec considered that the painter had achieved for his sad figure the same prodigy that Minerva did for Ulysses when she wished him to find favor with the King's daughter. Dubois later added in the lower left corner a stethoscope lying on some old books.

Two designs were made by Nannoni for medals in 1844. Tardieu made an engraving, which is mediocre and lifeless. It was designed in 1823 to be placed with an article on Laënnec in the Biographie Médicale.

POSTSCRIPT

Hither as to their fountain, other stars repairing
in their golden urns draw light.
MILTON.

THROUGH the kindness and recommendation of Dr. William H. Welch and Dr. Henry Barton Jacobs, of Baltimore, the writer was appointed a delegate of the United States to attend The Laënnec Centenary in Paris in December, 1926. The senior American delegate was Dr. William S. Thayer, emeritus professor of medicine of Johns Hopkins University. Dr. Thayer possesses the qualification which Laënnec quoted as necessary for a great physician, that of poet. With Dr. Welch he had represented the United States, at the Pasteur Centenary a few years before. It had been my good fortune to have Dr. Thayer as my commanding officer in France in 1918 and 1919. Equally at home in

England and in France, and beloved by the profession of both countries, no better medical ambassador could have been selected. Dr. Thayer had received a cablegram from the Centenary committee requesting him to give a short address at the Sorbonne as representative of all the foreign delegates. This address was prepared while crossing the Atlantic, and my small part was to suggest that the great work of the French in the field of tuberculosis should be stressed. Dr. Thayer's speech terminated as follows:

The epoch of Laënnec marks the beginning of our exact knowledge of the nature of the scourge which has robbed humanity of its most cherished hopes, and Laënnec of his last efforts. In the development of this knowledge France has played the premier rôle with Bayle, Laënnec, Louis, three Frenchmen the importance of whose work cannot be exaggerated when one attempts to solve the problem of tuberculosis. And, later on, was it not Villemin who prepared the path for the grand discovery of Koch? Perhaps it is reserved for a Frenchman, a

modest yet bold investigator (Calmette), to forge the last link in the chain which will render impotent the ancient enemy . . . In the name of the delegates and of the learned societies of the foreign governments, I have the honour to express to you our gratitude for according to us the happy opportunity of paying reverence to a memory which is the heritage of humanity, the glorious remembrance of Laënnec.

As stated by the editor of *La Presse Médicale*, Dr. Thayer was well qualified to deliver this address having published two interesting essays on Laënnec and having presented The Academy of Medicine of Paris with three original Laënnec letters. His address, in perfect French, brought forth unusual and long applause from the distinguished audience.

France above all nations, reverences her great men. The participation of the French government in the magnificence of the Centenary celebrations, the eloquence of the physicians who commemorated the work of Laënnec, and the kindness and hospitality

lavished, were all greatly appreciated by the distinguished foreign delegates.

A full account of the Centenary can be found in *La Presse Médicale* December 18, 1926, and it commences with the following quotation from Newton. "Glory is due the inventor alone; those who come after him are only disciples."

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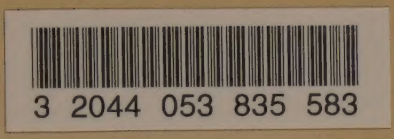
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